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Original Articles.

FURTHER REMARKS ON EROSIONS OF THE STOMACH.*

BY MAX EINHORN, M.D.

NEW YORK.

In 1894 I published a paper[1] on erosions of the stomach and their treatment. Under this name I described a condition in which aside from various subjective symptoms of gastric origin, there are always found in the wash-water of the stomach one to four small pieces of gastric mucosa. In the paper referred to I gave a history of seven cases of this affection that had come under my observation. Since the publication of my paper, C. Pariser[2] has written an exhaustive article on the same subject corroborating in most points my observations. Pariser has seen three cases of erosions of the stomach in one year, and therefore concludes that the affection under consideration is by no means rare. There are but very few points in which Pariser does not apparently agree with my views; they are, however, of minor importance and perhaps based on a different conception of some of the symptoms. In the clinic picture of erosions I laid stress on the circumstance that the pains are of a slight nature, thus differing from ulcer of the stomach. Pariser says that in his cases the pains were described as "unbearable suffering." I must say that I still hold my old view and yet Pariser is also right, for slight distress coming on constantly with great regularity soon after meals is often very wearing and sometimes even unbearable for the patient. It is *not* the intensity of the pain, but its steady nature which effects this. With reference to etiology, Pariser assumes that chlorosis may play a great part. I do not deny that many of these patients are either anemic or chlorotic, but I rather believe that the condition of the blood is a sequel to the gastric trouble and not the primary factor.

Hemmeter[3] apparently does not believe in erosions of the stomach as a special disease, for he says: "The conclusion seems justifiable that very tiny exfoliations and erosions occur in all stomachs, and in adult life perhaps at all times. . . When this process reaches such an exaggerated type as described by Einhorn, it is very probable that the mucosa is made less resistant by some well-developed gastric disease—one of the forms of gastritis, carcinoma, etc.—for his patients suffered from pains, emaciation, weakness."

Hemmeter's conception of my cases is perhaps not quite correct; there was carcinoma in none and gastric catarrh in but few of the cases. The clinic picture, however, and the objective features were very similar in all of them, and we decidedly hold that erosions of the stomach form a special disease, which may be accompanied by various other affections.

Chas. G. Stockton and Allen A. Jones[4] describe erosions of the stomach as a special disease, and put it next to the chronic gastric catarrh. With regard to the local treatment advocated by me, these distinguished writers say: "We have used these measures, together with lavements of solutions of boric and tannic acids and potassium permanganate, sometimes with apparent benefit; in one case after six months' treatment we saw not the slightest improvement. Attention to the general health, and to that end strychnin, arsenic, malt and cod-liver oil, fresh air, sunlight, mountain climbing and other invigorating exercise, may be recommended." It is evident that these views agree with mine in regard to treatment.

Inasmuch as there has been so very little written on erosions of the stomach, I deem it of interest to give you my new experiences with regard to this malady. Since my first report I have met with sixteen additional cases of erosions of the stomach and will describe a few of them in detail, referring to the others in a cursory way and summarizing the principal symptoms in a table.

In February, 1894, Sam W., 40 years old, presented himself. He had enjoyed good health up to twenty years before, when he came to America and was compelled to work much harder than he was accustomed. He had been in the habit of eating very fast and had lived irregularly. His digestion then began to trouble him. About six years ago he lost his wife, the shock of which still further impaired his health. From that time on he began to complain of gastric symptoms. Rumination developed very soon after and it still prevails. For the last five years the patient suffered a great deal from slight pains in the epigastrium quite soon after the ingestion of food, and from water-brash two to three hours after meals. Marked constipation was present, as well as a continuous feeling of weakness and fatigue, and the patient has lost about ten pounds.

Present condition: The patient looks somewhat delicate, but not greatly emaciated; his tongue is only slightly coated. The chest organs are intact. Palpation of the abdomen shows a slight tenderness in the epigastric region. The stomach extends to almost a hand's width below the navel (splashing sound); liver not enlarged, kidneys not movable. The knee-jerk is present; the urine does not contain any sugar or albumin. Examination of the gastric contents one hour after Ewald's test-breakfast shows the presence of free hydrochloric acid, the acidity being 90. In the fasting condition the stomach is empty. On washing the organ four small particles of gastric mucosa are found

*Read before the American Gastroenterological Association, May 2, 1899, Washington, D. C.

[1] Max Einhorn: Clinical Observations on Erosions of the Stomach and their Treatment. Medical Record, June 23, 1894.

[2] C. Pariser: Ueber Hemorrhagische Erosionen der Magenschleimhaut. Medicinische Revue, April, 1897.

[3] Hemmeter: Diseases of the Stomach, p. 126.

[4] Chas. G. Stockton and Allen A. Jones: System of Practical Medicine by American Authors, Vol. iii, p. 183. Philadelphia, 1898.

Table of Cases of Erosions* of the Stomach Observed from June, 1894, to December, 1898.

Number.	Name.	Age.	Principal subjective symptoms.	Duration of disease.	Condition of gastric contents.			Other diseases present	Treatment.	Result.	Remarks.
					HCl.	Acidity.	Mucus.				
1	C. S.	48	Pains began about one hour after meals, lasting 2 or 3 hours; off and on att'cks tachycardia.	2 years.	+	100	No	.....	Meals frequently; alkalies; rest.	Cured.	
2	Miss Mary W.	28	Slight pains pretty soon after meals; weakness.	8 years.	+	72	No	.....	Spray with nitrate of silver and intragas. galvanization	Cured.	
3	George E. F.	40	Slight pains after meals. Weakness.	5 years.	+	64	No	Anemia.	Spray with nitrate of silver.	Greatly improved.	During the 5 years of sickness pat. had off and on exacerbations of his trouble, lasting 1 to 2 mos., in this event pains were more severe.
4	Alfred H.	39	Constant belching; slight pains after meals; weakness; occasionally sleeplessness.	6 years.	+	60	No	.....	Spray with nitrate of siiver.	Cured after 2 to 3 months tr'tm't.	Patient gained about 20 pounds in weight, remained well for over 2 years; an acute attack of perforative appendicitis ended his life.
5	Edgar C.	42	Slight distress later on after meals; headache; constipation.	18 years.	+	48	No	Hypersecretion of stomach.	Spray with nitrate of silver; intragastric galvanization	Cured after 4 months tr'tm't.	Patient gained over thirty pounds in weight.
6	James O.	47	Frequent belching; bad taste; bloated feeling and slight distress in gastric region.	About 3 years.	+	40	Considerable quantity present.	Gastritis chr. alcoholica.	Lavage and spray with nitrate of silver.	Improved.	Patient was a habitual drinker, and improved during abstention from alcohol; soon returned to his old habits and all symptoms returned.
7	Miss Pauline F.	23	Frequent belching; distress in gastric region.	18 mos.	+	32	No	.....	.....	.....	Have seen patient 3 times for diagnostic purposes; do not know further progress of the case.
8	Morris J.	46	Frequent belching; distress in epigastrium after meal; occasional diz.; severe headaches.	12 years.	+	28	Present in considerable quantity.	Lues.	Spray with nitrate of silver.	Greatly improved.	The attacks of headaches were usually accompanied by a papu-eruption of the skin.
9	Jacob K.	50	Slight distress soon after meals; frequently palpitation of heart.	5 years.	+	26	Present in consid'ble quantity.	.....	Lavage and spray with nitrate of silver.	Greatly improved.	
10	Mrs. H.	34	Slight distress soon after meals; occasionally nausea.	7 years.	+	24	No	Chlorosis.	Spray with nitrate of silver.	Cured.	
11	Franz B.	35	Distress after meals; occasional nausea and vomiting; frequently anorexia.	5 years.	+	24	No	Pulmonary tuberculosis.	Spray with nitrate of silver; guaiacol carbon.	Temporary relief.	Patient died later from profuse pulmonary hemorrhages.
12	Daniel F.	28	Distress after meals; anorexia; frequently belching; recently vomiting.	3 years and 9 months.	0	4	Present in considerable quantity.	Pulmonary tuberculosis.	Spray with nitrate of silver; guaiacol carbon.	Temporary relief.	When patient first consulted me (latter part of 1894) but a very slight lesion discovered at apex of lung; a month later lung affection made rapid progress, and patient died about 5 mos. later.
13	Mrs. Johanna B.	Abo't 60	Slight distress after meals; occasionally colicky pains, dizziness and diarrhea.	6 years.	0	Neutral.	No	.....	Fluid ext. of condurango; ferratin.	Improved.	

*The diagnosis of gastric erosions in all the cases mentioned in this table was made after the constant repeated finding o several pieces of gastric mucosa in the wash-water of the stomach.

in the water. This observation was made on several other occasions. The diagnosis of erosions of the stomach was in this way established. He was treated for quite a while by spraying of the stomach with a 1/1000 solution of silver nitrate and by intragastric galvanization, these two methods being employed alternately. To overcome the rumination he was told to endeavor to suppress the regurgitation of food whenever possible. He was also given alkalies—half a teaspoonful of bicarbonate of soda two hours after meals three times daily. After two months' treatment all the symptoms disappeared. Rumination no longer occurred, and in the wash-water of the stomach no particles of mucous membrane could be found. The patient had also gained considerably in weight, and has remained well since.

In April, 1895, Gustav D., 38 years old, was seen. He had been troubled with gastric symptoms for the last five or six years. He chiefly complained of discomfort (or very slight pains) in his epigastric region very soon after having taken food. His appetite was quite poor, and his bowels were either constipated or diarrheic. Vomiting appeared but rarely, more frequently during the summer on days when the patient either was exposed too much to heat or had partaken of coarser articles of food. He had lost about ten pounds, and at times felt quite weak and despondent. Physical examination of the chest and abdominal organs revealed nothing of special interest. There was a very slight tenderness in the gastric region, but no distinct pain on pressure. The splashing sound could be produced, extending to about one finger's width above the navel. The examination of the stomach one hour after Ewald's test-breakfast showed the presence of HCl, with a total acidity of 56. A remarkable feature of this case was the great abundance of mucus found in the stomach. Thus almost half of the chyme obtained after the test-breakfast consisted of pure mucus. The examination of the stomach in the fasting condition showed that the organ was empty; after lavage had been applied, several pieces of gastric mucosa were found in the wash-water. Washings of the stomach in the fasting condition during the following week always revealed the same phenomena: the presence of several particles of gastric mucosa in the wash-water. After treating this patient with gastric lavage, spraying the stomach with a ½ to 2 per 1000 solution of nitrate of silver was employed continuously every other day for about three weeks. At the end of this time the symptoms had greatly subsided, and particles of gastric mucosa no longer appeared in the wash-water.

While in most cases of gastric erosions the local treatment is attended with such good results, I shall describe a case in which the same plan of treatment failed to produce any apparent improvement:

R. H. D., June, 1895, about 58 years old, had been troubled during the last three years with slight pains and uneasiness half an hour to one hour after meals. He had tried different remedies and all kinds of diet, but without avail. The uneasiness appearing after meals prevented him from taking sufficient nourishment, and he had consequently lost a great deal in weight. His bowels were regular, his appetite good, and with the exception of the symptoms just described he felt quite well. Physical examination did not reveal anything abnormal; the gastric region was but slightly painful to pressure. Examination of the stomach one hour after Ewald's test-breakfast showed the presence of free hydrochloric acid and an acidity of 60; no mucus. On washing out the stomach in the fasting condition, from five to six small pieces of gastric mucosa were found in the wash-water. The patient was treated for about a month with spraying of the stomach with a 1/1000 solution of nitrate of silver, alternating with the application of intragastric galvanization, but the small particles of gastric mucosa continued to be found in the wash-water. He was then put on large doses of subnitrate of bismuth (1/2 dram three times daily) and on a diet consisting principally of milk, for about three weeks, but the slight pains did not cease, and the small particles of gastric mucosa were still present in the wash-water of the stomach. The patient left for the country, and after staying there two to three months, the symptoms disappeared. However, I have not examined the stomach by means of lavage, and can not therefore say whether the erosions have really entirely healed.

On the preceding page is a table of the remaining cases that have come under my observation since my first publication on the subject:

Epicrisis: In examining the cases described in detail, as well as those contained in the table, we see that erosions of the stomach are met with in connection with the most varied states of gastric secretion. Thus, in some a normal degree of acidity was found, in others hyperchlorhydria prevailed, while in still others there was either hypochlorhydria or achylia. Two of the cases mentioned in the table are of interest, inasmuch as they were complicated with tuberculosis of the lungs. In fact, in one of these the gastric symptoms were for several months the only complaints of the patient, and no pulmonary lesions could be detected; the latter became more apparent later on, and the patient died half a year after the lung affection became manifest. In this patient achylia gastrica existed, although microscopic examination of the small particles of gastric mucosa showed that gastric glands were present.

In another case (Morris, J.) there was a previous history of syphilis. Here it is worthy of notice that the exacerbations of the gastric and intestinal symptoms were usually accompanied by papulous eruptions of the skin, as if the process of erosions—or exfoliations of patches of mucous membrane within the stomach—corresponded to the external eruption of the skin. Antiluetic treatment was not of much benefit in this patient.

In four cases the symptoms of chronic gastric catarrh with considerable amounts of mucus were present, and it may be rightly inferred that the latter plays a certain part in the etiology of the erosions. With reference to anemia, I mentioned above that this most probably is due rather to the gastric lesion and the impaired nutrition dependent on it.

With reference to the symptomatology of gastric erosions, the cases here described harmonize with the clinic picture I laid down in my first article. Besides the objective finding of gastric mucosa, there is almost always some distress (or slight pains) soon after the ingestion of food. Frequently a feeling of weakness is met with. Some other symptoms may be encountered, viz.: anorexia, nausea, vomiting, constipation, diarrhea, dizziness—either always present or appearing in attacks. But none of these symptoms is constantly found, nor are they characteristic of this affection, as they are found in the most varied ailments of the stomach.

The treatment consisted in most cases of spraying the stomach with a 1 to 2 per 1000 solution of nitrate of silver; in some, especially in those accompanied with hyperchlorhydria, intragastric galvanization was also administered. The local treatment is almost always followed by good results; in one case only, the one related above in detail, there was no improvement whatever after these remedial procedures, nor did a milk diet and large doses of subnitrate of bismuth effect an amelioration of the condition. An entire rest from business and a prolonged stay in the country finally brought on the desired change. In two of the cases observed no local treatment was applied, as there were other conditions of greater importance which had to be looked to.

The diet should be arranged to correspond with the state of gastric secretion after the general well-known rules. Very coarse articles of food and highly-seasoned dishes should, however, always be avoided.

Lastly, the following points which I suggested in my first article may here be again mentioned: "Cold ablutions, light gymnastics, outdoor life, are to be warmly recommended. Of medicaments, condurango and nux vomica are frequently, and a good, easily assimilated iron preparation always, appropriate."

20 East Sixty-third Street.

AQUEOUS SUPRARENAL EXTRACT.*

ITS SURGICAL AND THERAPEUTIC USES.

BY JOSEPH MULLEN, M.D.

Member American Medical Assn., Oculist and Aurist, St. Joseph's Infirmary, etc.

HOUSTON, TEXAS.

I will not attempt to note and describe the history for the past year of the experimentations, hesitations, and progress of the branches of medicine to which this section is devoted; but rather, instead of dealing in generalities, and a mass of accepted and non-accepted observations, I shall take up just one substance, describe it, note its physiologic action, and especially its local application to diseases and operations of the eye, ear, nose and throat, i. e., the aqueous extract of the suprarenal gland of the sheep.

This preparation, owing to its remarkable local, as well as its constitutional effects, has attracted considerable attention both at home and abroad. Many observations have been made, and many times verified by competent observers, so that the use of the aqueous extract both locally and constitutionally, particularly the former, has long ago passed from the experimental to that of the practical clinic stage. Its field of usefulness has greatly increased within the last eighteen months, so that a few physicians have

*Report of Chairman, Section on Ophthalmology, Otology, Rhinology and Laryngology, Texas State Medical Association, April, 1899.

administered it internally for its constitutional effects, with very gratifying results.

The most surprising thing in reference to the use of the capsule is that so few physicians, comparatively speaking, use it, while those who are familiar with its use would sorely feel the need of it. The extract is dispensed to the profession (Armour & Co., Chicago), in the form of scales resembling pepsin scales in general appearance, but quite brown in color and distinctly animal in odor. It readily absorbs moisture when exposed to the air. It dissolves very quickly in water at the ordinary temperature, making a solution the color of coffee, the shade depending on the strength of the solution. It also undergoes putrefactive changes very quickly unless dissolved in a saturated boric acid, salicylic acid, or carbolic acid solution—one minim to the dram. These substances do not injuriously effect the properties of the suprarenal extract. Dr. W. H. Bates[1] prefers a cold boric acid solution filtered before using. I prefer to use sterilized water to a dram of which one minim of carbolic acid is added, the latter acting as a local anesthetic and mild antiseptic. I never filter, because the process is long, causing a great waste of the extract, and so far as I have observed does not accomplish anything. M. D. Lederman[2] suggests as a stable solution 10 grains of the extract to 1 dram of 25 per cent. glycerin-water-solution, allowing it to stand for forty-eight to fifty-two hours, shaking it occasionally and then filtering through common filtering paper. This gives a light amber-colored solution ready for use. C. L. Vansant[3] recommends the following solution as a preservative: Five grains of the capsule, 11 grains of boric acid and ½ ounce each of camphor water and distilled water, then filter.

Chemic nature.—Prof R. H. Chittendon[4] believes in the existence of two distinct bodies physiologically active, possibly "sphygmogenin," named by Frankel, producing increased blood-pressure, the other paralyzing the heart muscles and causing death from asphyxia. Drs. Corona and Maroni[5] are also of the opinion that there are two active principles in the adrenal gland, owing, they say, to the physiologic effects produced on frogs. In proof of this the experiments of Langlois are of interest. He observed[6] that after daily sublethal doses of the toxins of diphtheria or other pathogenic bacilli were given an animal there occurred after a time a hypertrophy of the suprarenal capsule, apparently an effort of the organism to neutralize the poisons being constantly introduced, and the two active principles are antagonistic in their action.

Muhlmann has extracted pyrocatechin from the suprarenal tissue; strange to say the medullary substance is the only portion of the gland which produces an active extract.

By far the most interesting observations are those upon this subject by Abel and Crawford.[7] Professor Abel isolated the blood-pressure-raising constituent, and classified it as an active sulphate, a pyridine base or alkaloid, demonstrating that it was not pyrocatechin nor a close derivation, as stated by Muhlmann. Dr. Wagner produces a substance which he calls ischemen, and asserts it to be permanent and concentrated.[8]

Physiologic action.—The adrenal capsule is physiologically active, both systematically and locally. Systematically its effects are principally on the circulatory and nervous systems. The intravenous injection of the extract produces an extraordinary rise of blood-pressure, which depends upon the stimulation of the vasoconstrictor nerves, the cerebral centers and ganglia in the blood-vessels.[9]

Dr. Cyon says it also paralyzes the vagus nerve and the cardiac depressors; on the other hand, it stimulates the central and peripheral ends of the accelerators; it momentarily stimulates the pituitary body, producing temporary retardation of the heart-beats. Oliver and Schaler assert the rise in blood-pressure depends on the direct action of the extract on the muscular coats of the blood-vessels, and possibly on the heart also.[10]

From the foregoing its use is at once suggested in cases of sudden cardiac failure or shock. Mankowski[11] has induced chloroform narcosis in fifteen dogs, and after the cessation of the heart and lungs for thirty seconds he injected a solution of the extract into the jugular vein and rescued the animals. Gottlieb[12] administered overwhelming doses of chloral and afterward revived the paralyzed circulation by giving the adrenal extract. Drs. Corona and Maroni[13] say that the red blood-corpuscles are not altered by the extract. Frogs which they injected developed, in twenty-four to forty-eight hours, general paralysis or tetanic convulsions. Given hypodermatically it produces great pain in the heart and chest, and the face becomes livid; respiration slightly affected.[14]

Local action.—When applied to any mucous surface it produces more or less profound ischemia, depending on the strength of the solution and the manner and time of application. Locally applied it is never followed by any constitutional manifestations.[15] The bloodless condition of the mucosa is unmistakably due to the local action of the extract on the vasoconstrictors of the capillaries, constricting them and inducing bleaching of the surface. This remarkable action was first observed by Velich[16] and afterward confirmed by Darrier, Barraud, Dor,[17] Bates and others. It will temporarily produce blanching of an inflamed mucous membrane frequently in degree akin to that of the eye of a cadaver.

No injurious effects to the tissue follow the continuous application, nor is there any danger of contracting a habit, as the action of the adrenal extract is purely local on mucous surfaces, no absorption taking place sufficient to produce any evidence of constitutional effects. The pupil, accommodation, and intraocular tension are in no way affected. It has absolutely no action on the skin, nor does it possess any anesthetic properties wherever applied. Its action is wholly but strongly astringent: hence its efficacy in preventing hemorrhage during an operative procedure on mucous membranes. The depletion is complete. Maurange first recommended it for the prevention of hemorrhage in eye operations. Its local effects are enhanced by a preceding application of cocain or antipyrin[18] solution. When applied locally for either therapeutic or operative purposes, it should always be preceded by a 5 per cent. solution of cocain, so as to secure the combined anesthetic and enhanced effects of the cocain and extract. The adrenal capsule has of itself no anesthetic properties, being purely astringent, and then only when applied to mucous surfaces. The astringent action begins in from thirty to forty seconds, and lasts from one-half to three hours, after which interval the mucous membrane returns to its normal condition. The solution of the capsule is not at all irritating, but rather imparts a cooling sensation to the conjunctiva.[19]

In the eye its use is always preceded by the instillation of a 5 per cent. cocain solution; ten minutes afterward the extract is also put in, and in fifteen minutes the surface is ready for operation; when complete anesthesia and ischemia have taken place[20], it seems to heighten its effects, which might be expected from the local use of any drug.[21] As is well known, cocain produces on mucous surfaces a contraction of the capillaries, while the extract of suprarenal capsule increases its action to such an extent that when the tissues are incised no hemorrhage occurs, while without the extract bleeding takes place and the anesthetic effects of cocain pass away with the flow of blood. The action of the suprarenal on the arterioles is further supplemented by contraction of the subconjunctival connective tissue pulling the membrane down upon the sclerotic, preventing, even if the hemorrhage be slight, the extravasation of blood beneath the conjunctiva.

These physiologic effects materially increase the clinic usefulness of the extract. It bleaches the vessels in the pterygium and conjunctiva, making the line of demarcation between the two quite distinct, isolating the former so its removal is readily accomplished. It, however, does not immobilize the tissues so that the suturing becomes difficult. It also greatly lessens secondary swelling, and in some unknown manner kindly influences more rapid healing, so that the sutures may be taken out earlier and the parts returned to their normal condition.[22]

When using the extract for tenotomies, proceed the same as in removing a pterygium till the capsule of Tenon is reached, then instil more cocain solution, after which the suprarenal capsule is used as before. In this way repeated testing of the muscle can be made until sufficient has been cut for the purpose indicated. It is surprising, when proceeding in this manner, to see the ease to the operator and the comfort to the patient with which the tenotomy is attended, and especially is it advantageous as there is very little hemorrhage or pain.

The swelling after excision of pterygii and tenotomies seems to be milder than when cocain alone is used, especially when cracked ice is applied to the parts after the operation. When operating on the drainage apparatus of the eye, cocain solution is first instilled into the conjunctival sac, and then a small quantity of the same solution is injected into the lachrymal sac and nasal duct. This is followed by a similar instillation and injection of the extract. Fifteen minutes after, the canaliculus can be opened and the stricture of the nasal duct incised. The operation is almost bloodless and painless, a decided improvement over the use of cocain alone.

Its application in removing meibomian cysts is as follows: Interpose between the lid and eyeball a piece of cotton saturated with cocain, to be followed by a similar pledget with solution of the adrenal capsule, leaving the latter *in situ* for at least ten minutes. When using this drug in nasal work I always prefer to introduce the extract directly into the tissues by the galvanic current. Experience has demonstrated this to insure a more prolonged and thorough effect of the drug. It may be effectually applied with a piece of cotton saturated with the extract and placed on the tissue to be operated on. This former method of application intensifies, as well as lengthens, the anesthesia and anemia of the combined action of cocain and the suprarenal extract. It furthermore prevents to a decided degree, the secondary swelling, and influences a more kindly healing of the parts. The local use of the suprarenal capsule is not only of service in operations within the nasal chambers, but is of incalculable advantage in combination with cocain, in applications with the galvanocautery, and also where chromic acid is applied to the mucous membrane. The induced anemia of the nasal mucosa permits the cautery to penetrate into the tissues more deeply down to the periosteum. I have used this preparation for over two years in all my nasal operations,[23] and I have yet to see any bad or ill effects follow its use. The extract is extremely serviceable in aborting acute coryza by reducing turgescence of the turbinal tissue, and maintaining this condition until the circulation re-establishes itself either naturally or as the result of atropin, etc. I have also found it extremely serviceable in controlling an acute paroxysm of hay-fever by nasal application. When a pledget of cotton saturated with the solution is interposed between the pressing turbinal and septal tissue, the astringent effect is so intense as to produce a pain in one or more teeth of the same side. This occurs in a goodly number of cases. Ear pain occurs less frequently. Oozing follows a nasal operation some three or four hours, and ceases in several hours. This is the only bleeding I have observed after the use of the suprarenal capsule.

The therapeutic principle on which the physiologic action of the extract of suprarenal capsule depends is the contractile power of the extract on the small arterioles and the basement membrane, thereby retaining in the tissues the cocain, increasing the ischemia and immediately preventing, as the tissues are incised, the hemorrhage occasioned, dissipating the local anesthesia and washing away the absorbed cocain. In operations within the nasal chamber, cocain rarely remains in the tissues longer than the blood, and passes away as the blood flows from the nose. We are also furthermore aware of the embarrassment and delay occasioned by the hemorrhage, which is frequently profuse, obscuring the field of operation, rendering frequent mopping with cotton necessary in order to keep the nasal chambers free from blood and clear for operation and observation.

Major operations within the nasal cavity, which would ordinarily call for the administration of a general anesthetic and entail the danger and inconvenience accompanying its administration, and the tendency to secondary hemorrhage afterward, now become primary. Instead of these drawbacks we are enabled to operate with very little inconvenience to the patient and with far more ease to ourselves, and with no danger at all of being called up at midnight to stop a profuse secondary hemorrhage from the nose. The patient is also relieved from the disagreeable features and dread of inhaling chloroform or ether, and after the operation, is enabled to go home and carry out your instructions intelligently; in other words, the extract reduces a major nasal operation to one of minor importance. I have observed that after the use of the suprarenal capsule extract, healing of the operated parts follows more quickly, and also there is less swelling than when cocain is used alone or when the operation is done under general anesthesia. There is undoubtedly less post-operative swelling than when the extract is not used, and less danger of the secondary hemorrhage that frequently follows nasal operations. We have also failed to observe in cases in

which the extract of suprarenal capsule had been used any symptoms of cocain poisoning.

I have never seen the slightest evidence of cocain toxemia. The rationale of this entire absence of the latter, when the extract is used, I am unable to give, but it is unmistakably a fact.[24]

The method of applying the adrenal capsule to the throat is always with a mop, preceding it by cocain solution. In doing operative work in the pharynx I spray or mop the field with cocain, after which I inject Schleich's solution, and then apply the suprarenal capsule. After waiting the required time for the bleaching of the mucous membrane, I proceed.

While it is of some service in removing enlarged tonsils and adenoids; in mitigating pain and controlling hemorrhage, its use can be dispensed with for these purposes as being quite unnecessary with the ordinary means at our command. Inflammations of the pharynx, tonsils, and larynx can be controlled, benefited and frequently aborted by the early use of the capsule extract, especially when used with appropriate treatment.

It is especially serviceable in acute laryngitis, and following the application of cocain I have frequently aborted acute attacks with its assistance. It also prolongs the anesthetic effects of cocain in any painful inflammation of the throat. It is likewise of benefit in those cases of pharyngitis with involvement of, and consequent to occlusion of, the Eustachian tube. It reduces the swollen membrane, permitting easy ingress to the tympanum of medicated vapors, etc. Its use is also grateful in enlargements of the lingual tonsil, either for the application of the cautery, tonsillotome or snare. Its field in diseases of the ear is indeed small, owing altogether to anatomic structure.

Dr. J. H. Thompson [25] writes favorably of its use in cases where granulations protrude through drum perforations and fill the canal and interfere with proper cleaning and medication of the ear. I have used it in acute myringitis with fair results; it is of very little use, as is also cocain, in paracentesis of the drum. Nor does it do any good in furunculosis either in aborting the furuncle or modifying it.

I append the following report of cases to demonstrate the varied operations in which the extract can be beneficially used.

Case 1.—J. F., aged 34, double pterygii, both extending from inner canthi well up on the cornea. Couching done. Operated with cocain and extract; no bleeding; anesthesia quite complete; very little post operative swelling and union by first intention.

Case 2.—Mrs. C., aged 26, had chalazion of the lower lid, and was very nervous. Interposed a small pledget of cotton between the lid and eyeball for five minutes, and then substituted one saturated with the solution of the extract and allowed it to remain ten minutes; complete dissection of cyst; some oozing but no pain.

Case 3.—Mr. A., aged 52 years, had stricture of nasal-lachrymal canal. He was quite old-looking for his age, and had been treated ineffectually by lavage of the lachrymal sac. I injected the lachrymal sac and canal through the punctum with cocain solution and followed it with a solution of the extract. There was no hemorrhage and only slight pain. A permanent probe was inserted.

Case 4. Mrs. A., aged 23 years, had acute catarrhal otitis in the left ear, the drum bulging perceptibly. I performed paracentesis after instilling cocain and a solution of the extract. The patient experienced pain, but I think not as much as if cocain only were used. The hemorrhage was as great as if the adrenal had not been used.

I have operated on a number of furuncles with the hope of modifying the pain, but with complete failure for the amelioration of pain during incision.

I use the aqueous extract of the suprarenal capsule exclusively in all nasal operations, and have done so for over two years with the most gratifying results, and I append a few cases which have been elsewhere reported.[26]

Case 1.—In Mrs. P., aged 48 years, diagnosis of inflammatory glaucoma due to pressure of the enlarged anterior end of the middle turbinal of the right chamber.[27] The patient was extremely nervous and dreaded any operative procedure. General anesthesia was out of the question, as she had fatty degeneration of the heart. The hypertrophy was rather large, and occluded the superior and middle meati. A 5 per cent. solution of cocain with two drops of carbolic acid to the ounce of the solution, was introduced into the tissues by cataphoresis. Ten minutes later a five-grains-to the dram solution of the aqueous extract of suprarenal capsule was also introduced by the same process, and fifteen minutes allowed to intervene before the enlarged end of the turbinate was removed with a cartilage knife without the patient being aware or at all conscious of any pain. The operation was also completed without any hemorrhage. The patient was ordered to apply ice externally for three or four hours. There was practically no secondary swelling and absolutely no secondary hemorrhage. The patient recovered from the glaucomatous attack.

Case 2.—Mrs. N., aged 23 years, had catarrhal inflammation of the ethmoidal sinuses, a condition existing for eight months and associated with very severe frontal and supraorbital neuralgia. Her general system was very much depressed, and she had almost reached a state of neurasthenia, being extremely nervous, very irritable, and with almost complete loss of appetite. A resection of the anterior end of the middle turbinate bone was decided on in order to secure thorough and constant drainage of the ethmoidal cells after exploration of the cavity. The same method of application was used as in Case 1, but not, however, using cataphoresis, as the patient was operated on at home and not in my office. The resection of the anterior end of each middle turbinal was done a week apart, and in neither instance was there any hemorrhage, but slight oozing during or after the operation, and but very little pain. The ethmoidal cells were also opened at the same sitting, with local anesthesia, and the former drained, washed out and packed with iodoform gauze. The patient made an uneventful and rapid recovery from the operations.

Case 3.—Mrs. C., aged 26 years, had reflex nasal cough dependent on pressure of the middle turbinal bone on the septum nasi. Her general health was fair, rather nervous, neurotic temperament and somewhat anemic. The anterior end of the middle turbinate was also resected in this case for the relief of the cough of which she complained. The suprarenal extract was used as in Case 2. There was slightly more pain than in either of the two previous operations, possibly due to the exquisitely painful condition of the parts from the pressure having been exerted for at least ten days. There was also some slight oozing of blood from the nose for four or five hours after the operation. The removal of the turbinate effected complete cure of the reflex nasal cough.

Case 4.—Mr. A. S. K., aged 21 years, had supraorbital neuralgia of the left side. He had suffered more or less constantly from the pain since his fifth year, the neuralgic attacks being worse in damp and low countries and in rainy weather, and being better in high altitudes and during the dry season. The condition was due to the rather large septal spur near the posterior one third of the middle turbinate bone on the left side. He has always enjoyed good health and lives principally an out door life. The combined solution of cocain and the suprarenal extract was applied in this case by the aid of cataphoresis. There was slight hemorrhage (oozing) several hours after the operation, but he suffered no pain while the septal spur was being removed. Result, cure of neuralgia.

Case 5.—Mr. D., aged 29 years, had occlusion of the right nasal passage dependent upon deflection of the nasal septum. Cocain and the suprarenal capsule solutions were used as in former cases, with the difference however, of being allowed to remain a longer time in contact with the nasal mucous membrane. In operating, the nasal punch was used, and the septum was completely broken up and softened in its deflected portion. This was followed by practically no hemorrhage, but the patient experienced considerable pain, only, however, just for a second while the punch penetrated the cartilaginous septum. The operation was followed by desirable results.

Case 6.—H. J., aged 10 years, had aural neuralgia, found to be due to nasal spur and hypertrophic rhinitis of the right nasal cavity. The cocain and suprarenal capsule were applied as formerly, and the nasal spur removed, as well as a small bunch of turbinate hypertrophic tissue. The removal of these

was accomplished without any hemorrhage and only slight pain, to which the little patient did not offer marked objection. The result was the entire disappearance of the aural neuralgia.

The post-nasal space, fauces, pharynx and larynx offer an excellent field for the use of the extract, particularly in the many hypertrophies encountered in these regions. Its application can not be made so prolonged and direct to the parts as in the nasal chambers, but sufficiently so to utilize its remarkable astringent effect, locking the cocain in the tissues and preventing hemorrhage. I shall report a few of the operations done with the extract in these cavities.

Case 1.—Miss D., aged 24 years, had elongation of uvula. She had a dry, tickling cough for five months. The redundant mucous membrane was amputated without pain or bleeding and very little secondary swelling.

Case 2.—G. S., aged 10 years, had hypertrophied pharyngeal tonsils. Cocain solution, 4 per cent., was applied to the tonsils, fauces and pharynx, followed by suprarenal extract. Both tonsils were removed with only slight pain and moderate bleeding.

Case 3.—Mrs. F., aged 42 years, had enlarged lingual tonsil, which was removed with the lingual tonsillotome; no pain nor hemorrhage.

Mrs. J. R. S., aged 55 years, had adhesion of left posterior pillar of the fauces to the posterior wall of the pharynx. There was also a large mass of cicatricial tissue filling up the lateral wall of the pharynx. Cocain was topically applied, and the extract solution, after which I injected Schleich's anesthetic solution in different portions of the pillar and cicatricial mass. The operation was almost bloodless and painless. These two advantages modified the difficulty of the operation and saved considerable time, rendering my work comparatively easy. Francis J. Quinlan[29] reported, before the New York Academy of Medicine, the removal of a fibroma of the nasopharynx by means of the cold snare, under the local influence of cocain and suprarenal extract, without exciting bleeding.

I have reported only this small series of cases, hoping they will illustrate and demonstrate the many forms of operative procedures in which the use of the adrenal extract is of undoubted utility, and also wishing you will pardon deflection from the custom of my predecessors. The extract then increases the anesthesia of cocain; with cocain it produces ischemia of the mucous membranes; it also in some way modifies operative swelling; it materially enhances rapid healing of the parts. I have never seen any evidence of cocain toxemia when the extract had been used.

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THE GIANT MAGNET.*

ITS USE IN THE REMOVAL OF FOREIGN BODIES FROM THE INTERIOR OF THE EYE.

BY WILLIAM A. FISHER, M.D.

Professor of Ophthalmology and President of the Faculty, Chicago Eye, Ear, Nose and Throat College; Attending Surgeon Illinois Charitable Eye and Ear Infirmary.

CHICAGO.

Cases have been recorded in which pieces of iron or steel have been tolerated in the eye for a considerable length of time, some being encysted and remaining quiet, but they are so rare that we can not attach any weight to them regarding prognosis or treatment. We must assume that a foreign body in the interior of the eye is sure of its destruction, if left alone, and, in all probability, of causing sympathetic inflammation and loss of the fellow eye. The removal of the foreign body, however, will by no means insure the saving of the eye. A foreign body, when extracted, may be so large and the destruction so great as to insure loss of the eye. In such cases enucleation should be done at once. The foreign body may also be very small and yet cause complete destruction of the eye. In any case of a foreign body in the eye we must remove the offending substance if we hope to save the organ. Most foreign bodies enter the eye through the cornea and cause the lens to become opaque. Assuming that foreign bodies must be removed, if in the interior of the eye, in order to save any vision, or the globe itself, we look for the best way of removing them. The literature is full of reports of magnet operations; much good has come from the small magnet, and it is indispensable in some cases. The Haab magnet has its place, but we must often use the small magnet in connection with it. When we have a piece of iron or steel in the anterior chamber, the small magnet will do us good service, and the operation is a simple one. The Haab magnet's principal mission should be to get the foreign body into the anterior chamber, when it can be removed with the small magnet.

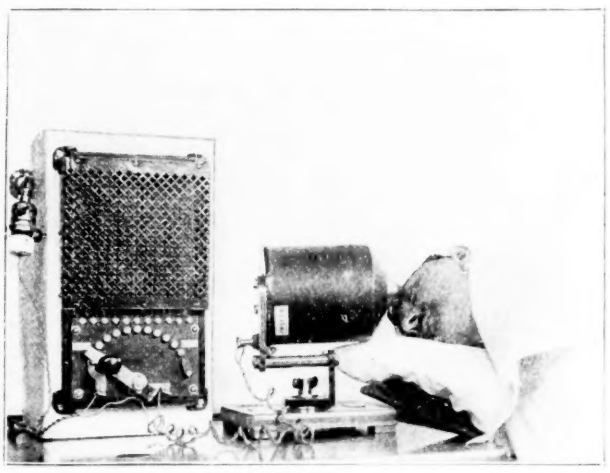

Fig. 1.—Position of patient and magnet for operation.

I exhibit this giant magnet to-night, not to show the brilliant results I have had with it, but to correct an erroneous idea that some of my confrères have of it and its workings. I have had the same ideas and came by them honestly, for I can not see how anyone can have a correct idea of the workings of this mag-

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net from what has been written. Like many things not common in the market, too much is expected of it. We have reports of operations with the Haab magnet that are startling, and one would think that the only thing necessary to record a brilliant operation would be a patient with a piece of metal in the eye and a Haab magnet that we could place close to the patient, touch the button, and remove the piece of metal from the magnet. In fact, we have a report of two cases where the magnet was successful in removing metal from the interior of the eye where the eye and the magnet were separated two inches from each other. In these two cases the patient was slowly moved toward the magnet, and when the eye was separated two inches from the magnet, the metal flew from the eye to the magnet. I can not say that such magnets have never been made, but the ones now on the market have no such power. If they had that much attraction and no rheostat, I would not like to subject one of my patients to such a force. From all accounts that I can find of this magnet, they must have originally been made without a rheostat. In the description of its use we are told to place the

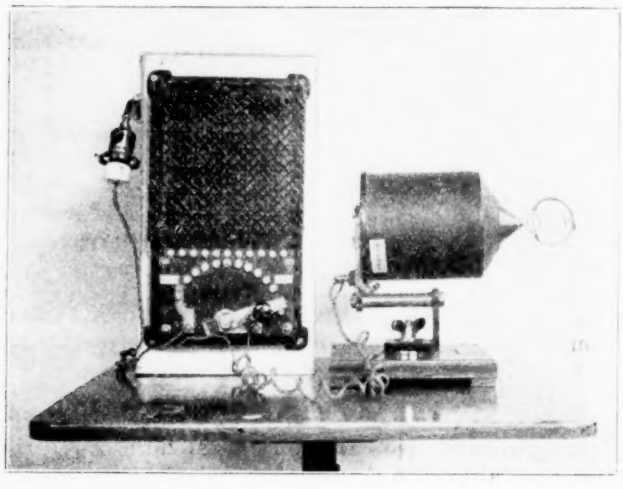


FIGURE 2.

patient in an operating-chair which is freely movable in all directions, then gradually approach the magnet with the patient. No such thing is necessary with this magnet. We place our patient in a comfortable position in an operating-chair, or on an operating-table, arranging the magnet and patient so the tip of the magnet will be in the line along which you expect to draw the foreign body. When all is ready and the tip of the magnet is in contact with the cocainized eye, we gradually turn on the current. By having a rheostat no more force need be used than just enough to attract the foreign body.

Many think the magnet impracticable if the metal in the eye happened, as is often the case, to be a long piece of iron or steel, and lying crosswise to the magnet. (Fig. 2.) In such cases the attraction of the magnet might draw the foreign body crosswise through the eye and force it into the tissues and make extraction impossible. The first motion a piece of iron or steel would make that was lying crosswise in the eye would be to turn itself and the point of the metal would approach the magnet. (Fig. 3.) If we insert a long piece of iron or steel crosswise in the posterior part of a rabbit's eye, place the tip of the magnet against the eye opposite the metal, and gradually turn on the current till we make the metal approach the magnet, we find the metal not crosswise, but the point of the long piece of metal attached to the magnet. In using this magnet we do not adhere to the rules as they are given us, for here we have a rheostat and the ones described must have been made without a rheostat. We place the patient and magnet in position, then touch the tip of the magnet to the cocainized eye before using any electricity. If the metal entered the eye back of the lens, we should, if possible, enlarge the opening and put the oval tip of the magnet into the opening and gradually turn on the current. If successful, we should find the metal adhering to the magnet. If we fail the first time, we can turn off the current, and quickly turn on and off, and in this way dislodge the metal. If we can not find the original opening, there is no objection to making an opening in the sclera back of the lens. If we succeed in removing the metal in this manner, we are less liable to destroy the vitreous than we would be if we introduced a small magnet into the vitreous, especially if we introduced it more than one time, or in more than one direction, as we usually do. If

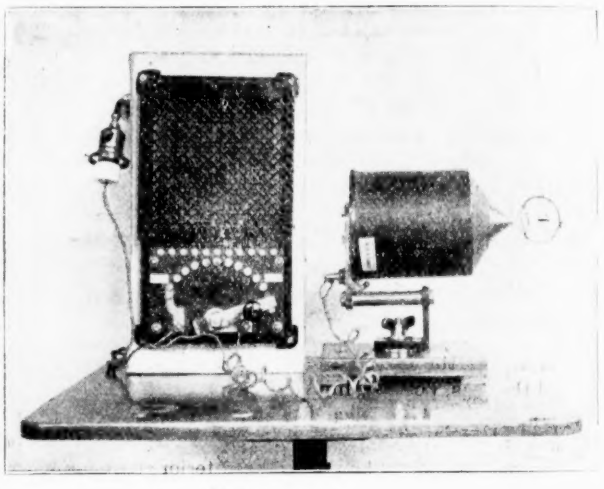


FIGURE 3.

the foreign body is removed in this manner, the vitreous is not churned up, but a tract made in its entrance and another in its exit. There is certainly no objection to using the Haab magnet for diagnostic purposes, providing we are prepared to remove the foreign body, if we find one. The only objection that has been registered against using this magnet for diagnosis is that we might dislodge the foreign body. If the only objection we can find is dislodgment of the foreign body, then I prefer dislodging and removing it.

If we suspect a foreign body in the eye and the lens is clear, we would not think of applying the tip of the magnet to the cornea, for we might injure a sound lens. If we have a clear lens we apply the tip of the magnet to the sclera behind the ciliary body. If we dislodge the metal we find the sclera adhering to the magnet. In such a case, make an opening in the sclera, and extract the foreign body. If the lens is opaque, I can not see any objection to using the magnet for diagnosis, and placing the magnet in contact with the cornea. If no metal be found, no harm can come from the use of the magnet. In such cases dilate the pupil and cocainize the eye, place the tip of the magnet in contact with the cornea at the sclerocorneal junction, then gradually move the rheostat till

the iris bulges forward. Now turn off the current, and place the tip of the magnet in position to draw the metal through the pupil into the anterior chamber. When the metal is in the anterior chamber the operation is a simple one. Make an incision over the foreign body with a Graefe knife or a keratome, and extract with a small magnet. In operating with the giant magnet we should have a non-magnetic eye speculum and fixation forceps. If we operate through the sclera, we should have two non-magnetic retractors to hold the wound in the conjunctiva open.

Choice of anesthetics must be left to the behavior of the patient. Cocain will be sufficient in most cases. All magnets of this kind should have a rheostat, and the magnet should touch the eye before applying any electricity. The rheostat should always be moved slowly in order not to use any more force than is necessary.

DISCUSSION.

Dr. HENRY GRADLE—I wish to cite the case of a young girl who had a chip of iron enter the sclerocorneal junction, penetrating through the lens. She came to me a few hours after the injury with a large rent in the lens capsule the external wound still open. I immediately made an iridectomy, extracted the lens, entered a small magnet, but could not get the foreign body. Cyclitis set in. A few days later, partly for diagnostic purposes and partly with the vain hope of accomplishing something, I placed her against the field pole of a ten-horse power motor, not differing very much in strength from this large magnet. She felt nothing. On bringing the eye in contact with it there was no visible change, but on enucleating a few days later the chip of iron was found displaced in such a way that I attributed its displacement to the application of the magnet. The foreign body was found in a position which it could not have reached by following a straight path or by subsequently sinking.

Dr. WILLIAM H. WILDER—It seems like inflicting unnecessary injury on the eye to draw a piece of steel forward, then around the lens, possibly injuring the posterior capsule, then through the suspensory ligament, making a rent in it, and then, in addition, running the risk of tearing the iris for the purpose of bringing the foreign body into the anterior chamber. I really can not see the rationale of having the foreign body make such a wide excursion with imminent risk of wounding important structures of the eye, when it is positively demonstrated that it is in the vitreous chamber.

Dr. WARE—I think we can determine very largely where the foreign body is located by the pain that it causes to the patient, by the impact of the foreign body against the eye toward the magnet. It strikes me that in an eye that is already inflamed and sensitive it would be difficult for a patient to localize the exact spot where the pain is.

Dr. FISHER (closing the discussion)—In regard to the statement of Dr. Wilder, of wounding important structures in extracting a foreign body with this magnet, it is not necessary to use enough force to cause serious injury to any of the important ocular structures, particularly when we have a rheostat to regulate the current. He spoke of drawing the foreign body through the posterior capsule. I stated in my paper that this should not be done unless the lens was already opaque. A foreign body can not be drawn through the lens, but by using enough force to draw it through the zonula one can see the iris bulge, then turning off the current, turning the magnet around, and coaxing the foreign body into the anterior chamber. In this way very little or no damage is done. Haab, who has probably extracted more foreign bodies with this instrument than anyone, uses the same method which I have demonstrated to-night. Reasonable care must be exercised in doing this operation, and not enough force should be used to injure important structures of the eye.

ACUTE OBSTRUCTION OF THE BOWELS.*

BY FLOYD WILCOX McRAE, M.D.,

Professor of Gastro-Intestinal, Rectal, and Clinical Surgery, Atlanta College of Physicians and Surgeons; Surgeon to Grady Hospital; President Medical Association of Georgia.

ATLANTA, GA.

I shall deal with acute obstruction of the bowels from a surgical standpoint, for I am convinced that the few cases which recover without operative interference but emphasize its importance. The results of operations for the relief of the various conditions that produce obstruction are all the while improving. These results, however, are not what they should be. The mortality is too great. When physicians come to a full realization of the importance of prompt and active interference, when they become willing to call immediate surgical aid, then will the mortality be reduced still further. So long as we are content to leave the cases to nature, and content ourselves with pumping our patients full of water or air, and giving them all sorts of drastic purgatives, just so long will we send more and more of these unfortunate victims to untimely graves. These are dangerous agents, and as a rule, they only serve to intensify the condition, produce greater shock, and an earlier demise.

Carefully prepared statistics show that less than 25 per cent. of these cases are amenable to medical treatment. Shall we, then, in the face of such statistics, confronted with such a mortality, persistently employ medical measures for four, five, six, eight, ten days, or longer, hoping for the improbable, but simply hastening the inevitable? It is only necessary to appreciate correctly the causes of acute obstruction to be convinced of the utter futility of medical treatment in any but exceptional instances.

By comparing acute obstruction from intra-abdominal causes with like conditions due to strangulation of an external hernia, a better understanding is had.

Leaving out individual idiosyncrasies, the pictures presented by the two conditions are almost identic. This is notably true of the internal herniæ, whether the hernia be into the duodeno-jejunal, pericecal, or intersigmoid fossa, or through the foramen of Winslow, slits in the omentum or mesentery, or underneath bands of adhesions or diverticulæ. While hernia of the diaphragm is a parietal hernia, it is really an internal hernia, and should be so classed. Kinking of an intestine, volvulus, foreign bodies, gall-stones, enteroliths, tumors within the intestinal wall, strictures, pressure from intra-abdominal growths, enteritis, peritonitis, or appendicitis, may cause an acute obstruction. Intussusception is also a frequent cause of obstruction, but typic cases present such a clear-cut picture as to make the diagnosis easy and positive. We must not be led into the error of looking for the characteristic symptoms of intussusception in the other forms of obstruction.

There is one cardinal symptom of all the varieties of acute obstruction; that is, failure to get a passage of either feces or gas. The lower bowels may be emptied by enemata, but it is impossible to get a through action. There is usually sharp pain, accompanied with nausea, vomiting, and not infrequently, marked signs of shock. These symptoms may be intermittent, or progressively increase to stercoraceous vomiting and profound collapse. The temperature in the beginning is normal or subnormal. When the

*Read before the Medical Association of Georgia, Macon, April 20, 1898.

obstruction is due to or associated with inflammatory conditions, there is elevation of temperature. The pulse is usually increased in frequency, but diminished in volume and force. The facies abdominalis is frequently well marked. The skin is at first cool and pale, then moist, later bathed in perspiration. The clinic picture is the exact analogue of a strangulated external hernia, minus a visible tumor.

Intussusception presents the additional symptoms of a sausage-like tumor in the abdomen, small mucous or bloody mucous stools, and occasionally the head of the invaginated gut may be felt per rectum.

The diagnosis of obstruction is comparatively easy; a correct differential diagnosis, quite difficult. A history of appendicitis, typhoid fever, laparotomy, or abdominal traumatism would naturally lead one to suspect strangulation by adhesions or by a band of organized lymph; of occasional short, sharp attacks of pain, associated with nausea and vomiting, followed by sudden and complete relief, hernia into one of the normal peritoneal fossæ. The location of the pain, tenderness on pressure and muscular tension, are also of some value. Increased peristalsis of visible coils of intestine and local meteorism are of diagnostic importance in cases seen early, before there is general distension. It is not only of great importance to make an early diagnosis of obstruction, but to locate the obstruction as well.

The increased peristalsis of visible coils of intestine which uniformly stops at the same place would naturally lead to the conclusion that the obstruction was near that location, and while this sign is of more importance in chronic obstruction, it is also of value in acute obstruction. The determining the location of the obstruction is very helpful in arriving at a definite diagnosis. Valuable time should not, however, be wasted in trying to make diagnoses that are often impossible. The pathology of acute obstruction is of very great interest. The shock, the nausea, the vomiting, and the manifold and grave symptoms produced by acute obstruction of the bowels can not be accounted for by the simple constriction of the lumen of the gut. In most cases a profound impression is made at once upon the sympathetic nerves and carried by them to the great abdominal brain. Changes take place in the intestinal wall, and also in the intestinal contents, very rapidly. The micro-organisms, many of which are under ordinary conditions saprophytic, become under these conditions, dangerously pathogenic Fermentation takes place rapidly, and ptomains are formed within the intestines; these produce irritation and pathologic secretion, and this combined influence still further poisons the local tissues, and by absorption and transmission, the entire nervous system. The intestinal wall, that in its normal state prevents the passage of micro-organisms into the surrounding tissues, becomes disorganized, and allows them ready passage into the peritoneal cavity, the liver, spleen, etc. In cases seen late it is often impossible to differentiate between obstruction and a beginning peritonitis from other causes.

The treatment of no condition more thoroughly tests a surgeon's skill and judgment than does that of acute obstruction of the bowels. The surgeon who operates for the relief of obstruction should be prepared to deal with any one or more of its various causes. He must have at hand the necessary mechanic aids, and have his head and hand trained to meet intelligently and treat skilfully whatever he may find. Acute strangulation by a Meckel's diverticulum is frequently mistaken for appendicitis. Surgeons of note and large experience in abdominal work have several times made this mistake. They have diagnosed appendicitis, and operated for it, when the trouble was of an altogether different character, requiring an entirely different procedure for its relief.

The method of dealing with the obstruction will depend largely upon its character, as well as upon the length of time intervening between the onset of the disease and the resort to surgical interference. Early operations are simpler, and promise much better results than do late ones. It is such a simple measure to break up adhesions or bands that may be causing obstruction, to deliver an incarcerated intestine from one of the peritoneal fossæ, or to release it from the embrace of a Meckel's diverticulum when the operation is undertaken early, and the results of these early operations are so gratifying, that one would hardly seem justified in resorting to the more dangerous and far less effectual medical measures. An intussusception can be dealt with more safely, more scientifically, and with greater facility, intraperitoneally than it can per orum or per rectum. The intussusception can be reduced, if reduction is possible, or where it is not, an immediate resection may be done while there is a fair chance of success. If the lower bowel is distended with water or air it is always a question whether the pressure will be exerted upon the intussusceptum or wasted upon the healthy bowel. Even where the full force is brought to bear upon the condition, it is the exceptional case that is relieved. Nor are these procedures free from danger. The intestinal wall rapidly becomes thinned and weakened, and has been ruptured by very moderate pressure. Three feet of hydraulic pressure has caused rupture of the infantile intestine. It is impossible to estimate correctly the amount of pressure which the weakened, incarcerated intestine will bear, and it is therefore unscientific and dangerous to have recourse to these methods, unless one is prepared to go ahead and operate if relief is not immediate and complete. A careful study of the statistics of successful operative cases shows that the best results have been obtained in the late cases by the establishment of an artificial anus, either temporary or permanent. Mr. Treves has shown very clearly in a recent paper published in the London *Lancet*, why this is so. He has shown that it is simply a further exemplification of the great principle of drainage. The intestine is filled with the most poisonous material. Its walls are thinned and distended with gas, and it is incapable of resuming its normal functions, even though the obstruction be removed. The establishment of an artificial anus, even though the obstruction remain untouched, allows the escape of this dangerous pent-up material, and permits the intestine to assume more normal conditions. Sometimes, and not infrequently, nature thus aided, completes the cure. When this happy result does not take place, the surgeon may undertake further operative procedures under far more favorable conditions than could possibly have obtained at the time of the primary operation. It is often a question with the surgeon as to whether he will allow the affected gut to remain, or do a resection. Where the gut, after being released, rapidly resumes its normal color, and where it has not lost its gloss, there is no question about leaving it intact. But

where the circulation returns very slowly, leaving discolored and abnormal looking patches, and where the peritoneal covering has completely lost its luster, the intestine should be watched carefully for some time, and if there is not constant improvement, it should be at least anchored to the abdominal opening, so as to be readily accessible in case of a breaking down. Where the gut presents a gangrenous appearance, where it is completely denuded of its peritoneum, and where there is practically no return of circulation after removing the constriction, then a resection should be done, when the conditions are favorable; or an artificial anus established in the more desperate cases. When resection of the bowel is done, the resected ends may be united by simple suture, or by the intervention of one of the mechanic aids. Mr. Treves claims in the paper above referred to that sixteen years ago he used a collapsible rubber bag practically identical with that recently introduced to the profession by Dr. Halsted, but that his experience with the instrument demonstrated its worthlessness. Where time is an important element, as it always is more or less in these operations, an end-to-end anastomosis with the Murphy button can be done in a very few minutes. The Murphy button to date has given better results, and has been more largely used, than any other mechanic device. The LaPlace intestinal anastomosis forceps, however, are even more ingenious than the Murphy button, and the operation may be done almost as quickly as with the Murphy button, and without the disadvantages of pressure necrosis and its consequent dangers, even though remote they be, or the leaving of a foreign body within the intestine. Theoretically, this instrument seems to be a decided step forward, and it has been used very successfully, both on the lower animals, and on human beings. A Meckel's diverticulum should be cut off, and the resulting opening in the intestine closed in the usual way. Obstruction due to general peritonitis does not offer very much to the surgeon. Without operation, however, the condition is absolutely hopeless. Where the cases are seen early, and the general condition permits of operative interference at all, brilliant and gratifying results may be obtained. The faithful, conscientious surgeon will not withhold his helpful hand in desperate cases for the sake of his statistics. Each life thus saved is as a brand snatched from the burning, and is a surgical triumph far-reaching in its consequence.

63½ Whitehall Street.

PHYSIOLOGIC RHYTHMS.

THE PRACTICAL VALUE OF THEIR RECOGNITION IN TREATMENT OF FUNCTIONAL NEUROSES.

BY WILLIAM LEE HOWARD, M.D.
BALTIMORE, MD.

All the normal rhythms are physiologic, are the expression of organic activity, but there are many which are gross exaggerations in their intensity, and some unphysiologic in their morbid expression; but rhythms, diurnal, weekly or monthly, which demonstrate an alteration in either the psychic or physiologic conditions, and as such, must be studied and utilized when treating psychic or functional disturbances.

Every living cell, and the multifarious resultant products and ultimate complete organizations due to the activity of cells are controlled, governed and developed through rhythmic action. Sunlight and darkness, the ebb and flow of tides, the regularity of the seasons, the periods of growth and decline, activity and rest, fecundation and sterility, exaltation and depression, nutrition and decay have a law of regularity and alteration fixed and immutable. These coarser variations in the rhythms which are a part of our environment are duly acknowledged, and our habits adapted accordingly.

The nutritive variations in individuals are as sundry as the numerous vocations, habits, environments and hereditary influences which contribute to make up the human social fabric. The central nervous system is particularly sensitive to nutritive changes and irregularity. A faulty or undeveloped gland disturbing the nutritive conditions under which the neuron normally responds, will destroy the harmonic action of the entire nervous system. Daily food rhythms are organically based, but habits, customs, social or business demands oftentimes ignore the periodic necessity of recognizing them, and the result is some form of nervous revolt, which can only be quieted by a prompt and absolute obeisance to the neglected claim of a somatic regularity.

All rhythms depend on variations in the stimuli, and changes in the physiologic condition of the system will produce these varying stimuli. Hence, if there is a slight disturbance in the normal physiologic habit, it will often only be demonstrated in an altered rhythm, which altered rhythm may so disturb the psychic centers as to culminate in one of the distressing and annoying functional neuroses.

All cells, in order to preserve function and complete their cycle of activity, must be constantly stimulated. It is a normal necessary process. Food is a stimulant and does the least harm to the elements, as these elements are undergoing a constant and regular disintegration which nothing can prevent. In studying neurasthenics it is generally found that through some occupation, habits, or social demands, the normal nutritive rhythm has been disturbed, and the regular physiologic demand for its stimulant food is demonstrated by fainting attacks, extreme weakness, pallor, cold perspiration, rapid, weak pulse and a sense of general nervousness, although the patients will say they have eaten heartily, though irregularly. These individuals will be found to be somewhat hungry during these attacks, for they are really suffering from exhaustion due to lack of nourishment. This absence of nutriment is the result of neglecting the regularity of the human system, and although food has been forced into the stomach, it has been passed along the intestine undigested, and the weakness, the nervous depression, is partly due to autointoxication through faulty metabolism and non-assimilation. Such cases are often seen among newspaper writers, society persons and actors, all those whose lives and occupation are distinctly antithetic to physiologic periods of rest and activity, nutrition and decay. Fortunately, man's nervous system is so pliable, so adaptive, that changes in habits will bring about certain variations in organic activity, so that the man of nocturnal habits will have his diurnal rhythms reversed but regular. Only will this fortunate condition prevail as long as man recognizes that he must obey the physiologic rhythms, and that his nights are physiologic days, and days physiologic nights, and not attempt to force upon nature the third habit of crepuscular conviviality.

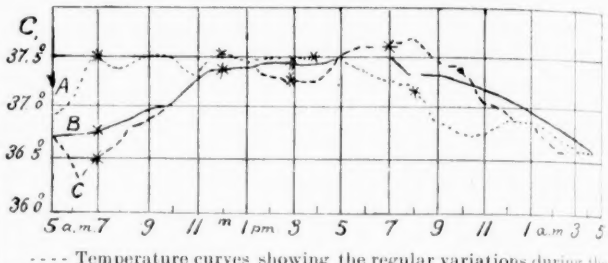
It is too often the inability to recognize these facts that leads to alcoholism and drug habituation in brain workers of the night. There are many such workers who will have regularly, diurnally, a sense of feeling uncomfortable, "nervous," unstable, irritable. These individuals have disturbed the normal rhythm of their system, but do not recognize the fact. Such persons will resort to stimulants for temporary relief, thereby aggravating the cause, and from temporary relief the conditions soon demand a habit; and what could have been at the commencement physiologically adjusted, is now a psychic and somatic wreck wallowing between the banks of drug empiricism on one side and disheartened and pessimistic periods of perversity on the other.[1] When the normal rhythms have been disturbed and interrupted, any attempt to restore the physiologic norm by means of drugs is useless and unscientific. As Donaldson[2] says: "The real difficulty in properly utilizing the rhythms produced by drugs depends on the fact that while the normal rhythms involve a mutually dependent variation in several systems, the drugs tend to have an unequal action, and are highly selective as to the system which they affect. Thus a physiologic reaction which, to be normal, demands a subdivision of labor is assigned in too large a measure to one system which, being unsupported by its neighbors, ultimately suffers harm."

Illustrative of the importance of recognizing the diurnal rhythmic disturbance is the following case:

P. L., a man 35 years of age, whose occupation had always been that of a newspaper writer, began to have a disturbed, distressed, unstable, restless period about four o'clock in the afternoon. This was first noticed about five years ago, and had gradually increased in its intensity. His hours were the reverse of the normal hours for activity in man. He went to work about seven o'clock in the evening and finished about three o'clock in the morning. His habits were careless, not reckless. He generally slept until about 11 A.M., at which time he felt rested and refreshed. He had noticed that the increasing restlessness was sadly interfering with his mental work, and with an intellectual perturbation which worried him came the necessity of stimulation. A resort to stimulants first became a relief, then a habit, and then a necessity. This latter condition only aggravated the nervous tension until he was unable to go through his night work without frequent stimulation. He ardently desired relief from his baneful necessity, but dreaded with horror those distressing hours about 4 or 5 P.M. Several times he had passed over these distressing hours without any artificial assistance, and afterward felt well and strong, and throughout the night had no desire for stimulants or necessity for their aid. He felt certain if he could pass over this veritable *faire le diable a quatre*, if he could avoid the anticipation of the depressed feeling, he would be mentally free and physiologically independent of extraneous aids.

His daily life, the periods of rest and activity, the variations in nutrition, were just the reverse of the normal state, so it was not surprising to find the analogue of the morning lowered vitality about four o'clock in the afternoon. If he wished to prevent a state of chronic alcoholism he must, he felt certain, avoid these horrible hours, these irresistible periods of depression, which were constantly and forcibly increasing in intensity through the added irritation of alcoholic stimulants. Other diurnal rhythms appeared to have adapted themselves to his mode of life.

He was directed to come to me about three o'clock daily, or before he felt any symptoms of the depression, and I then had him eat lightly of beef and eggs and drink several glasses of milk. With the ingestion of food was associated suggestion, both in the hypnotic and waking state. In this manner the dreaded hours were safely and pleasantly passed over and the association habit of alcoholic relief, which would have soon merged into the genesis of a fixed habit, and from this fixed habit to a pathologic state, was fortunately interrupted, and the continuity of morbid expectancy successfully broken.



- - - - Temperature curves showing the regular variations during the twenty-four hours. * indicates a meal; ——— B. and - - - - C. Jürgensen; A . . . . Jäger. (From Landois.) In the two curves most similar the body temperature is highest about 7 P.M., lowest about 4 A.M.

Any external stimuli, any change in the fixed habits of life, or variation in the normal growth and decay period of daily existence, tends toward an unstable equilibrium of the whole nervous system, and exposes a rich neurotic soil on which are soon planted formations of morbid associations, which associations by repetition gradually, but persistently, grow into uncontrollable habits that can scarcely be distinguished from pathologic states.

In the successful treatment of neurasthenia or of dipsomania, morphinomania and allied drug habits, a thorough interpretation of physiologic processes is absolutely necessary. The factors which cause a daily increase in body weight, along with its accompanying regular rhythm in body temperature, the onset of fatigue at different though fixed hours of the day, and the lessened ability to work, especially mentally, during these ebbing rhythms, must be taken into thoughtful consideration in treating disturbed nervous states and habit neuroses.

There are certain sensitive individuals, individuals of a pronounced nervous instability, who are ever the constant victims of the sway of impulse and the license of passion. These unfortunate persons have their psychic natures disturbed by declining atmospheric pressure, high temperatures and dark gloomy days, but they are benefited by suggestion, sleep, food and increasing atmospheric pressure.[3] All these facts only accentuate the effect external stimuli have on the general nervous system, and the effectiveness with which voluntary impulses act on the centers of the spinal cord. "The so-called automatic actions of the nervous system are but a series of responses to stimuli more or less marked" (Donaldson). As Lombard has shown, even the intensity of the knee-jerk greatly depends on the general condition of the body and the time of day. We know from numerous experiments that reaction-time, both simple and complex, is longest in the afternoon and shortest in either the morning or the early evening.[4]

[1] "Pathologic Impulse to Drink—Alcohol as a Secondary Factor in Dipsomania," William Lee Howard, Medicine, February and March, 1898.
[2] The Growth of the Brain, Donaldson.
[3] "The Physiology of Strength and Endurance." Popular Science Monthly, June, 1898, William Lee Howard.
[4] Ostanikow and Gran: Neurolog. Centralbl., 1893.

There are a large number of external stimuli which have more or less influence in disturbing physiologic processes and so directly affect the nervous system, which it is necessary to constantly bear in mind. The influence in the monthly rhythm in women has long been recognized, as well as the periods of fertility and menopause, and their analogues in man, adolescence, virility and senile impotence; but there are other rhythms, those of the atmosphere and temperature, spoken of above, which have a great influence on certain neurotic temperaments and on those whose biologic adjustment has been faulty.

The regular increase of crime against property in winter is only an indirect result, through the social and economic influences of temperature, but the increase of crimes of passion and indecent assaults during the months and years when the temperature is highest is the direct effect of the temperature.[5] The crime of rape is most numerous in June and least so in November.[6] We are all acquainted with patients whose biologic conditions are such that they offer the feeblest resistance to diurnal variations. The presence of the sun or its absence exerts a marked influence on the physical and psychic organism of certain individuals. This class of barometric individuals exhibits at night a relatively unequilibrated, emotional and restless condition associated with lessened mental inhibition. Such changing states caused the alienist of old to attribute nocturnal intensification of insane symptoms to the coincident appearance of the moon, which there is no reason to believe has ever any other influence on insane patients than that of a sensorial stimulus of a mild and customary kind (Kellogg).

A consideration of the above facts will enable one to see how dependent the habits and actions of man are upon environment and the conditions which are necessary factors in keeping this physical world in a position to support sentient beings.

We too often treat the nervous system as an isolated independent entity and forget that it is one of several, mutually dependent on each other for their common existence, which common existence is controlled to a great extent by external forces and stimuli, over which we have no guidance or rein, but to which we must ever bear a listening attitude and respectful submission.

CURE OF INTERNAL HEMORRHOIDS.

BY JAMES A. GARDNER, M.D.

BUFFALO, N. Y.

Undoubtedly there have been sufficient schemes advanced to cure internal hemorrhoids to rival in number the so-called "cures" of cancer. The trouble is so annoying and painful that the poor sufferer, trying each, turns from one to another and finally throws all aside as useless. The treatment of internal hemorrhoids divides itself into two classes, medical and surgical.

As regards the medical treatment, as a rule the patient has taken his druggist's advice and used all the different "cures" he has in stock, and finding no relief here he goes through the list advertised in the newspaper. He then turns to the physician. By this time the pathologic condition is such that the soothing ointment of his doctor does but little good. In the majority of cases, if the patient presented himself during the earlier stages, proper application of ichthyol would reduce the inflammation and effect a cure. Most remedies contain opium and belladonna, whether advertised as such or not, and therefore give but temporary relief. Oftentimes, when a patient consults the physician, there is some reason why there can not be surgical interference. If the tumor protrudes, it must be replaced as soon as possible, the pain being most severe with the tumor outside of the sphincter. The congestion may be reduced by cold applications, cold sitz baths or chopped ice. Following this the tumor should be well lubricated with olive-oil and then gently pushed back in place. Occasionally it is impossible to do this and an anesthetic must be used, and once the spasm of the sphincter having been removed it is, as a rule, a simple matter to replace it. This is but temporary relief, and at the next movement of the bowels the tumor will probably return. Astringents, cold applications, with rest in the prone position, are now in order. The cold application is best made by injection; this not only contracts the blood-vessels but will also render fecal matter of such consistency that it will irritate the inflamed surface but little. This treatment does not have the extended use it should. Cold water enemas are by all means the best palliative measure.

When piles become troublesome and detrimental to health, either from their tendency to bleed or prolapse, surgical treatment is the only course to pursue in a majority of cases, as affording a complete and permanent cure. Before advising an operation, make sure that the hemorrhoids are not caused by some disorder higher up, stricture of the bowel, cancer, disease of uterus or bladder, enlarged prostate or cirrhosis of liver. Hemorrhoids of pregnancy rarely need surgical interference. A number of methods have been advanced for the cure: 1. Electrolysis. 2. Nitric acid. 3. Dilatation of sphincter. 4. Crushing. 5. Whitehead's operation. 6. Injection of carbolic acid. 7. Clamp and cautery. 8. Ligature.

Of these it may be said that the first four methods enumerated are but very little used to-day. A man whose hobby is electricity will use electrolysis. Those who are rather timid will use the second and third method. The fourth method, which is not that of up-to-date surgery in the first place, has the very serious objection of liability of secondary hemorrhage. The fifth method gives an excellent result if successful, but unfortunately statistics show many failures. The sixth method is advocated by many physicians because it does not lay the patient up, but the course of treatment is long and tedious, extending over many weeks. This method consists of a 25 per cent. solution of carbolic acid in glycerin and water. Four minims are injected, with a hypodermic syringe, into the center of the pile, and may have to be repeated on several occasions. If care is not used, sloughing and ulcers will result. Usually but little pain follows.

We now have left the two most popular methods, each of which has many advocates. Those in favor of clamp and cautery contend there is not the danger from hemorrhage, nor the after-pain; the operation can be performed with more dispatch than by the ligature method. On the other hand, the advocates of the ligature method believe the simple ligature is easier handled than the cumbersome clamp. If properly applied there is no danger of slipping and therefore no hemorrhage. The cautery needs the whole attention of one assistant and often will not work at the moment it is needed. The slough which follows

[5] Criminal Sociology, Ferri, 1898.

[6] Des attentants a la Pudeur sur les Petites filles. P. Bernard, Thése de Lyon, 1886.

is longer in healing than with the ligature method, where the mucous membrane may be partially drawn over the top of the stump with fine silk, leaving but little raw surface.

In their technic both operations resemble each other in a great many points. The patient having been properly prepared, and anesthetized and placed in the lithotomy position, the surgeon dilates the sphincter slowly but so completely that it will not regain its tone for two or three days. A soft sponge with string attached is then passed into the rectum above the site of operation to prevent descent of any fecal matter that preceding enemas may not have brought away. Now each pile is in turn seized with a tenaculum and pulled out from the wall to make it more prominent. The mucous membrance at its base is dissected away with curved scissors. If the clamp is the method preferred, it is now applied, the blade being transverse to the axis of the gut and fitted into the dissected surface at the base, then screwed up and that portion of the tumor outside of the clamp excised. The raw surface is seared with the cautery, at dull red heat, and the clamp slowly removed.

In the ligature method a double ligature of catgut is passed through the base of the pile and each half is tied separately; the pendent portion is then removed with scissors. Care must be taken here not to cut so close to the ligature that it will afterward slip. With fine silk the mucous membrane may now be drawn over the stump as much as possible. Each pile is taken in turn, whether by clamp or ligature, after which, the sponge having been removed, the surface is dusted with some of the numerous dusting powders; modoformol seems to have given the best results in my hands. An opium suppository now being inserted, a pyramid dressing of gauze is applied, held in place by a T-bandage. After-treatment consists of opiates in addition to the suppository, when necessary, for twelve hours. Catheterization is necessary as a rule. The bowels should be kept quiet for three days and an enema of olive-oil given preceding the movement.

149 Franklin St.

FIFTY-ONE MASTOID CASES.*

FIFTY OPERATIONS, INCLUDING FOUR BRAIN ABSCESSES AND ONE PERFORATION OF THE SIGMOID SINUS.

BY D. MILTON GREENE, M.D.

Eye, Ear, Nose and Throat Surgeon to U. B. A. Hospital and Holland Home for the Aged; Lecturer to U. B. A. Training School for Nurses.

GRAND RAPIDS, MICH.

For convenience and to prevent the necessity of giving in detail the histories of a long list of cases, which would add no interest to this report, I have divided the fifty-one mastoid operations into two classes. Class one includes those which presented nothing unusual for cases of suppurative mastoiditis. Class two includes all cases not included in class one.

In class one are thirty-six operations. Of these, twenty-four followed acute suppurative otitis media. Only twelve had chronic suppurative otitis. The operations were all performed with chisel and mallet. In six cases an opening was made from the antrum into the tympanum. In only five was there swelling over the mastoid process, two of which were in children aged eighteen months and two years respectively. All had a temperature ranging from 99 to 104, and all recovered. In thirty-one the diagnosis was made from the quantity and persistency of the aural discharge, temperature, chills, pain, and especially the swelling and protrusion at the upper and posterior wall of the tympanum and auditory canal. This class, therefore, presents nothing of special interest, except the fact that a diagnosis was made in each case, operation performed, and pus found in the cells and antra with the exception of three cases. In the cases where pus was not found, the cells and antra were intensely congested, and I believe the operations were beneficial by their depleting effect on the parts, thereby cutting short the inflammatory process. No damage was done by the operation in any case.

In class two there are fifteen cases, each of which presents points of special interest. This includes one patient not operated on, who died, and autopsy was made confirming the diagnosis.

Case 37.—Mr. D., aged 48, gave a history of chronic aural discharge by spells for thirty years, from his left ear; swelling in temporal region for several weeks, extending mostly above and anterior to the ear; temperature 102; pulse 100. There was evidence of pus formation, though the swelling was tense and no fluctuation. I incised the swelling and found a hole in the skull communicating with an extradural abscess located in the middle fossa. The abscess cavity was thoroughly curretted and drained and the case recovered.

Case 38.—Miss B. had chronic aural discharge which had resisted years of treatment. She took cold from a draught of air on the side of her affected ear, had chills, pain over mastoid and in ear, and temperature ranging from 99 to 102; no external swelling, edema nor redness over mastoid; tympanic walls at posterior superior portion swollen. The membranes of the auditory canal at the upper and back part were swollen and inflamed. Operation, on fifth day, revealed pus in the mastoid antrum, which was freely opened and scraped. A week later a retropharyngeal abscess formed, marked by a severe chill and temperature of 105, and when opened discharged a half ounce of pus. The patient recovered in six weeks.

Case 39.—J. S., aged 38, had pain in the left temple extending from the ear forward over the face and brow. This continued for about three weeks. He had no discharge from the ear, but his wife said he had some several years before. He improved after the first week and went to work for several days, when he was again obliged to quit work and take to his bed. At the end of three weeks from the time he was taken, he began to be delirious by spells. When asked a question he would try to answer it, but would always say something other than an answer, as for instance: "Mary" (his wife's) or some other familiar name.

A brain specialist was called, and advised the family physician and family to call me to see if he might not have some ear trouble, which had given rise to the temporal pain. When I called I found him as stated above, but also with his left eye turned outward, pupils quite large though reacting to light, temperature 98, pulse 50. I could not get a good view with the ophthalmoscope, on account of his restlessness and struggles to get out of bed, but there was choked disc to some extent; bowels constipated. He had vomited some for three days whenever he drank water. He took no food, was quite emaciated but strong. Pus was seen behind the drumhead, which was slightly inflamed in Shrapnel's membrane, and there was a little offensive pus in the auditory canal. There was no local swelling or signs of any kind over the mastoid, and no motor paralysis excepting of the internal rectus. He had difficulty in standing, with tendency to fall to the left. He was anxious and excited, grasping for the bed-clothes constantly and was determined to lie on his back or left side, constantly turning his face to the right as though hunting for something on that side.

I diagnosticated brain abscess. As the brain specialist believed no abscess existed and told the family so, stating that if I thought there was I could oper-

* Read before the Western Ophthalmologic Association, Feb. 10, 1899.

ate, but must take all responsibilities, I opened the mastoid and found about a dram of greenish pus. I then extended the scalp incision upward and backward three inches exposing the skull an inch above and one inch back of the temporo-parietal suture. With a three-quarter-inch trephine I opened the skull an inch and a half above and an inch back of the external auditory meatus. There was no pulsation felt in the brain. With an aspirating needle on a hypodermic syringe I drew off a half-dram of pus. I then opened the membranes and incised the cerebral substance to the depth of about half an inch and evacuated two or three ounces of greenish pus, intensely offensive. The operation lasted but a few minutes, and the cavity was packed with iodoform gauze and the patient put to bed. There was considerable hemorrhage from the pia mater and capillaries of the scalp and bone; pulse was weak and rapid. The patient recovered from the anesthetic (chloroform) without vomiting. Operation was performed at 2 P.M., and at 8 P.M. he was perfectly conscious, answered questions, rose up in bed, took a tumbler of water in his hand and drank. Twenty-four hours after the operation the pulse ran up to 170 and temperature to 105, with all the symptoms of meningitis. He died forty-four hours after operation.

Case 40.—Mr. A., aged 33, had earache nine months ago, followed by profuse purulent discharge which has continued in spite of all treatment. There were no external mastoid signs, but swelling at the posterior superior tympanic wall, and membrana tympani was half destroyed; ossicles necrotic. I removed the ossicles in April, but the discharge continued, so in July I opened the mastoid, which contained pus and softened bone. He recovered with the formation of a new drum membrane, which had been entirely removed in the first operation; has good hearing for the voice, in the operated ear, but not for a watch; had facial paralysis, from which he recovered in two months.

Case 41.—Miss J., aged 9, had earache, followed by purulent discharge from the left ear for about four years. On examination I saw a dark body in the auditory canal and tympanum, removed it and found it to be hard coal. When and how it got in the ear no one knows. The ossicles were necrotic, so I removed them. Discharge finally ceased for a time, but soon recurred. After fruitless efforts with months of treatment, I opened the mastoid, found the cells soft and full of pus, curetted, and the case made a rapid recovery. She too had facial paralysis, from which she recovered in six weeks.

Case 42.—Mr. V. V., aged 19, called at my office on account of a profuse discharge from his right ear, and especially because he was unable to open his mouth. He had no pain. There was some swelling below the tip of the mastoid. The auditory canal, near the drumhead, and the back wall of the tympanum were swollen and red. Pus was profusely pouring from the ear, so that the auditory canal would fill in ten minutes. He complained of feeling dizzy when he attempted to stand. I operated as soon as he could be prepared, and made in the soft parts, in addition to the regular section for mastoid operation, an incision obliquely upward and backward so as to get free access to the mastoid. On opening through the external plate the cells were found to be entirely destroyed by the suppurative process, and the whole mastoid process was full of pus. On attempting to scrape it out, the inner plate was found to be soft, and readily broke down over an area three-fourths of an inch by one inch, evacuating thereby an extradural abscess containing about an ounce of pus. The sigmoid sinus was in plain view for fully one inch. The tympanum was entered by chiseling away the wall between it and the mastoid, from the opening in the latter. The case made an uninterrupted recovery, and in three months he had good hearing in the ear operated upon.

Case 43.—Mr. W., aged 37, had discharge of pus from right ear for fifteen years. Temperature was normal. He had been treated much, and never cured, but had no pain. After three months' treatment, without benefit, I removed the ossicles and cleaned out all soft tissue from the tympanum. Pus continued to flow in considerable quantity and opening the mastoid was advised. After due preparation an incision was made above and behind the attachment of the auricle down to the tip of the mastoid, the lining of the auditory canal was removed as far back as the drum membrane and the ear lifted from its position. The cells and antrum were opened and found full of pus and softened bone. In removing the softened and necrotic bone the facial nerve was necessarily injured, causing facial paralysis, which yet remains. The bone was so extensively diseased that by its removal at the roof of the antrum and tympanum the dura was exposed to the extent of one-half by three-fourths of an inch. The recovery was somewhat slow, but he left the hospital in six weeks. He has been able to follow his business as foreman in a factory ever since, and has no discharge from his ear.

Case 44.—Mrs. M., aged 42, had partial deafness in both ears for years, but no earache or discharge. She had la grippe followed by pain in, and discharge of pus from, the left ear, and swelling over the mastoid. I opened the mastoid antrum, and found no pus, but intense congestion. Improvement followed operation. Temperature, which was 102 to 104 before the operation, never rose above 100, until an abscess formed in the neck, when it reached 102. The abscess was opened and she recovered promptly.

The interesting point in this case is that she recovered with perfect hearing in the operated ear, but the other (right) ear, while improved to some extent by the after-treatment, has the hearing much impaired.

Case 45.—February 21, I was called to see Miss H., 24 years of age, who had been suffering with pain in both ears for twenty-four hours. I found both drum membranes inflamed and bulging from accumulation of bloody serum in the tympanum, temperature 101 and pulse 100. No cause could be assigned for the ear trouble. The left ear being the worst, I punctured the membrana tympani and a bloody serum flowed freely. I was again called in a few hours and opened the other drumhead with like effect. There was extreme congestion in both ears, and though the pain was relieved for the time, it soon returned in both ears. I ordered leeches and morphin to relieve the pain, and next day the temperature ranged from 98.9 to 99. The next four days temperature was below 99 and pain continued intermittent and pus was flowing from both ears. The fifth day the temperature rose to 101, and she complained of deep-seated pain in both ears and extreme sense of pressure. Leeches had been applied. I ordered blisters over the mastoids which filled well.

On the sixth day I had counsel with several physicians, and, all symptoms being aggravated, opened the mastoid on the left side in the usual way, and found the cells and antrum full of lymph and blood and some small deposits of pus. I opened from the antrum into the middle ear through the bony wall, then made a Wilde's incision on the right side. Pain was relieved on the operated side, but continued on the right.

At the operation we noticed, just in front of the tragus, a red spot as large as a 25-cent piece, surrounding a recent leech-bite, but thought it nothing serious. At night, to my surprise, it had spread to the size of three inches in diameter, extending over the cheek and eye, and we had a case of erysipelas which spread over the face, head, neck, and in a few days had extended down the back as far as the last dorsal vertebra, but had not attacked the wounds over the mastoids, which were made within a portion of skin which had been blistered by cantharides. As the patient was delirious and seemed to be growing worse, and the erysipelatous process was steadily going on, not having been checked by carbolic acid, subcutaneous injections of boric acid, etc., I circumscribed it by cantharideal collodion. This was suggested by the fact that though the whole head was enveloped by erysipelas, the mastoids which had been blistered escaped. This treatment cut short the spread of erysipelas, and the inflammation never went beyond the blister, which extended in a line over the breast and back, encircling the whole body. In a few days the erysipelas was entirely cured. At the end of thirty days she still had severe pain in her neck and arm and some in the right ear; pulse 100 and temperature 101.4.

The symptoms caused by erysipelas had made it impossible for me to judge what part of her fever,

delirium and pain was due to the ear and mastoid, and what part to the erysipelas; but as her temperature was above 101 and erysipelas cured, with pus flowing from her right ear, with swelling at the upper back part of the typanum bulging forward and downward, I opened the mastoid and evacuated two or three drams of pus, and the pain was relieved. From this time she went on to complete recovery. I removed a small sequestrum of necrotic bone from the wound in the left mastoid during this time. She was completely deaf in both ears before the operation, we being obliged to write what we said to her, but the ear first operated was soon restored to hearing, while the hearing in the other ear is still defective. She had facial paralysis, from which she recovered.

If I had such a case again I should open the mastoid on both sides at the time of the first operation.

Case 46.—Baby N., aged 3 years, had extreme swelling in the region of the right ear, which existed for a week, when the family physician called me to see it. I made a free incision and evacuated a large quantity of pus, and ordered that it be kept drained and cleaned by irrigation.

I was surprised, a year later, to learn from the father that the wound was still open and discharging pus, but otherwise the child was perfectly well. I advised an examination, but before they got around to see me again a piece of necrotic bone of considerable size was expelled and the wound healed rapidly.

Case 47.—Baby B., aged 18 months, was taken with fever and was ill for a week, when the father, who was a physician, noticed swelling in the neck and mastoid region. There was and had been no discharge from the ear. I incised the mastoid coverings freely and evacuated four or five drams of pus, and the case recovered rapidly, without discharge from the ear ever taking place.

Case 48.—Mr. T., age 40, had suffered from chills and fever for three weeks when he came under my observation on account of a profuse and offensive discharge from his left ear. There had been suppurative otitis in the left ear for twelve years. The pulse was 60, temperature 99, pupils normal and no choked disc. He was intensely nervous and restless, and had not slept for several days. The mastoid was opened and pus found in the cells and antrum. The roof of the tympanum was soft, and was scraped away, leaving the dura over that portion of the temporal lobe exposed. As there was no pulsation to be felt in the brain I passed an aspirating needle in and found an abscess in the temporal lobe, containing an ounce of pus. The cavity was reached by opening the dura and the abscess seemed to be walled off. A drainage tube was inserted after thorough irrigation, and the case went on to recovery.

Case 49.—Mrs. W., age 42, had acute otitis media with frequent chills. The pulse ranged from 90 to 120. She had not much pain after the first few days, but at the end of about seven days had a severe chill and temperature of 105. Soon after this she had metastatic abscesses form in her legs; they continued to form and she had frequent severe chills followed by high temperature, which would again go down to 99 and remain so until after another chill. An early diagnosis of mastoid suppuration was made and an operation refused.

Later a diagnosis of perforation of the sigmoid sinus was made, but no operation was allowed. She died at the end of seven weeks. Autopsy confirmed the diagnosis, the antrum and cells being full of pus, and the sigmoid sinus filled with pus and clot.

Case 50.—M. W., aged 6, had scarlet fever, and, toward the end of the disease, severe suppurative otitis media supervened and she became entirely deaf. The discharge continued profusely and she had chills with a temperature ranging as high as 105.

I was called and diagnosed mastoid complication and advised operation. After a week's delay, and when she was growing weaker, then being but a mere skeleton, the family wanted an operation. Both ears were equally affected. I opened both mastoids at the same operation and evacuated a quantity of pus. The temperature went down to 100 the next day and only once did it reach 102, when the drainage had become imperfect. She made a good recovery after several weeks. As she was totally deaf before the operation as a result of the scarlet fever and extension of the inflammation to the labyrinth, she is still deaf.

Case 51.—L. V., aged 26, was taken with pain in his left ear, and had swelling around the ear and temple extending finally to his neck, jaw and face. Later a retropharyngeal abscess developed and the swelling on the outside extended along the large vessels down to the clavicle. The abscess in the throat broke and discharged pus. At the end of three weeks, an abscess developed on the left side at the angle of the eighth rib, which was incised and discharged several ounces of pus. At the end of five weeks I was called to see the case, and found an abscess over the heart which encroached upon the left chest. Pus was distinctly seen behind the drum membrane.

Three days before I saw him he had a severe chill and since the day after the chill had been unable to utter but one word, which he repeated whenever asked a question or if he wished to call attention; that word was "no." The pupils were large, but the right larger than the left. They reacted promptly to light. There was no choked disc, and no paralysis. I diagnosticated involvement of the mastoid, mediastinal abscess and brain abscess at the angle of the fissure of Sylvius, above the fork. The next day the mastoid and tympanum were opened and pus evacuated. The abscess over the heart was incised; it contained fully a quart of pus. The patient suffered no shock from the operation and improved for a few days. I insisted upon opening the skull, but was unable to get the consent of the family until the patient became paralyzed in the face, arm and leg of the right side; then, five weeks after the first operation, I opened the skull and verified the diagnosis by evacuating three ounces of pus from a brain abscess.[1]

As for the particular form of operation adopted in the cases herein reported, I would say that no hard and fast rule can be laid down for mastoid operations. I usually perforate the cells and antrum with a large-sized hollow chisel, in the depression one-quarter to one-half inch back of the auditory canal. If pus is found, and it is deemed necessary, I proceed from this opening to remove as much of the bone as necessary, always bearing in mind the important anatomic structures. It would be useless for me to enter into the technic of mastoid operations, for that is thoroughly covered in other papers and in text-books.

METHODS OF PREVENTION IN SMALLPOX.*

BY SOLON R. TOWNE, A.M., M.D.

OMAHA, NEB.

In the face of the conditions existing in various parts of the country this past winter this theme was chosen for a clear statement of methods and to form a subject for discussion. No new principle is to be presented. We have only to trust to four well-established agencies, namely, diagnosis, quarantine, vaccination and disinfection.

An early and positive diagnosis in an individual case of variola is not always possible. Anders, in his last edition, declares that "This difficulty is sufficient occasionally to test the skill of the most astute diagnostician, and the sooner this fact is understood and

[1] A full report of this case will be given in a paper before the Section on Surgery and Ophthalmology, American Medical Association, at Columbus in June.

*Read before the Medical Society of the Missouri Valley, St. Joseph, Mo., March 16, 1899.

appreciated the better it will be, not only for the public, but for the profession as well."

Most cases, however, are quite readily recognized by the four days of prodromal pain and tenderness in head, loins and limbs, a temperature of 103 to 106 F. that quite disappears on or before the fourth day, when a papular eruption on the forehead and hands begins. Giddiness is rarely absent. A preliminary rash may have occurred, but without the coryza and cough of measles, though with pain and later the papular eruption not found in either measles or scarlatina. But confusion is much more frequent between varicella and that which to many people, and even to some physicians, seems an impossibility—mild variola; such an ancient bugbear has smallpox become—thanks to Jenner. Right at this point, however, a correct diagnosis becomes a prominent factor in prevention, and it behooves every physician to keep clearly in mind the diagnostic differences, but in any uncertainty to be on the safe side, and give the public the benefit of the doubt by establishing quarantine at once. One angry man is more easily appeased than an enraged public.

Following are some diagnostic points presented somewhat after Anders:

	VARIOLA.	VARICELLA.
	HISTORY.	
1.	No previous attack.	1. No previous attack.
2.	Case in vicinity.	2. Case in vicinity.
3.	Not vaccinated.	3. Negative.
4.	At any age.	4. Rare in adults; almost always in children.
5.	Prodroma four days; rash third day.	5. Prodroma not over one day.
6.	Mild in childhood.	
	ERUPTION.	
1.	First forehead, then hands and feet, moving regularly over body.	1. On trunk—later face—not regular in motion.
2.	Vesicles uniform—deep.	2. Superficial, vesicles vary—ellipsoidal.
3.	Vesicles—serum, then pus.	3. Serum only.
4.	Most on forehead, hands and ankles.	4. Most on back and lower extremities.
5.	Stages distant from each other.	5. Papules, vesicles, scales together.
6.	Multicellular.	6. Unicellular, collapse readily.
7.	On palms and soles, under nails; blood in vesicle.	7. No blood, vesicles superficial.
8.	Fever prodromal, then absent till septic symptoms.	8. Fever not secondary.

The time element is a valuable diagnostic point, as seen by the following scheme.[1]

	Incubation.	To eruption.	Eruption to end of fever.	Infection period.
Variola	{ 12 days. / 10 to 15	3 days. / 2 to 5	14 days.	56 days.
Varioloid	{ 12 days. / 7 to 14	2 days. / 1 to 4	14 days.	20 to 56 days.
Varicella	{ 12 days. / 4 to 5	1 day.	5 to 7 days.	

Quarantine is a necessity. Choose an isolated room in an isolated house, the room to be inexpensively furnished in both furniture and clothing, and with a single case in the community, with few exposed, there need be no general vaccination, but the isolation must be perfect, even at the expense of night-and-day watch that can be trusted, as absolutely nothing should be removed from the building but under the strictest antiseptic precautions; house to be plainly carded "Smallpox."

In considerable epidemics an isolation hospital is required, and any city of 50,000 can not afford at any time to be without such an institution in some inexpensive form; also detention rooms for the exposed and suspects, where they may be held for sixteen days, awaiting developments. All public gatherings should be prohibited, and this should apply to schools, even when the cases are few. Medical attendance, food and fuel for the needy or the day laborer should be provided by the public.

[1] Rules of Ontario Board of Health.

In a large majority of instances, however, vaccination is demanded, especially of all exposed persons, and on first suspicion of the existence of variola, confirming the diagnosis afterward. When a considerable number are exposed, and certainly, if secondary cases do appear, general vaccination is the only quick, sure, safe and inexpensive method of securing immunity and stamping out this disease. All courts, in case of an epidemic, sustain the school board in closing the schools to all pupils not freshly immune.

Vaccination should be done aseptically, somewhat as follows: Clean an area the size of the palm, with alcohol upon clean cotton. This removes most of the cuticle and the commingling fat and dirt, and is likely to also destroy remaining bacteria, but will not remain to destroy the virus. Scarify, with an aseptic sewing needle, a space rather less than half an inch in diameter, barely touching the capillaries that may ooze very slightly from the skin when upon the stretch; apply glycerinated lymph with any aseptic instrument, scorched toothpick or heated probe, rubbing thoroughly into the skin, this being an essential point to insure implanting the virus in exposed persons. Protect the surface with cotton held at the edge by collodion. Great care is needed to prevent reinfection. Boiled gauze may be given the case, to be kept carefully clean, this with cotton, as a protection against injury. A bow of ribbon or some sign worn on the sleeve is a protection against injury.

This care is recommended, since a bad arm in a community prejudices everybody against vaccination, especially when smallpox is mild. In epidemics, vaccination should be free to schools and the poor. We have been so well protected that our laws are lax and will be so until State boards can thoroughly educate us to the necessity of vaccination. Infants should always be vaccinated by the second May of their life; again at high-school age, and again whenever liable to exposure afterward; at least every five years.

No physician needs proof of the protective power of vaccination. In a list of 185 cases recently seen, only 9 persons had ever been vaccinated. Four of these had an aborted variola, four very mild, only one having the average type. One had the abortive type, having had variola in the sixties. In twenty-two families the unvaccinated only had the disease, the vaccinated escaping; whereas, no unvaccinated one escaped when exposure was considerable. I believe frequent revaccination will stamp out the disease. The aborted cases had marked early symptoms, but the papule did not develop to a vesicle, and in ten days the skin was smooth.

Disinfection should not occur until all diseased surfaces are smooth and until the palm and sole are clear of crusts and scales, these surfaces being the latest to recover in most cases. All clothing not easily cleaned by boiling, such as comforts, mattresses, feather beds and outside suits, should be burned; except possibly in cities having a steam apparatus. After closing the room and sealing cracks, etc., if sulphur is to be burned, at least five pounds per 1000 cubic feet should be used; only after all surfaces have been exposed to steam for two hours. The room should be closed for at least twelve hours. A more rapid process—and from Chicago reports quite as effectual a one—is the use of formaldehyde or 40 per cent. solution of formalin, some five ounces to 1000 cubic feet, by the sheet method. The sheet method is better than the use of a lamp, as the gas

accumulates much more rapidly, and the larger the amount at a given time the better the result. Pathogenic bacteria are killed when buried one, two or even four inches in a mattress. The Chicago method was with "wash-bottle" with rubber bag. I have found an "atomizer" used by horticulturists to work admirably. No tests have been made.

All persons on leaving quarantine should take a hot soapy bath with corrosive sublimate, 1 to 500, and this should be generally attended to by an inspector, that it be complete and thorough.

After the gas disinfection, a carpet should usually be removed, and all surfaces, certainly where dust might settle, be well scrubbed with a hot suds with bichlorid, 1 to 500. Pets should never be allowed in the sick-room, nor be allowed freedom about an infected house. The physician should exercise great care. Most do keep themselves vaccinated and their families as well.

In visiting contagious cases we should wear a mackintosh and a skull cap, avoid sitting, or touching things in the sick-room especially, and should brush over exposed surfaces of persons and clothing with some disinfectant on leaving the sick-room. This should be done at least for reputation of carefulness and for its effect on the community, thus practicing what we preach.

TYPHOID FEVER IN CHILDREN.

BY FREDERICK R. STARR, M.D.
INSTRUCTOR DISEASES OF CHILDREN, UNIVERSITY OF CALIFORNIA.
SAN FRANCISCO, CAL.

Etiology.—Typhoid fever is rare under two years of age, although cases have been reported of a seven-months fetus and of infants eight and eleven days, four and eight months, in all of which cases were found post-mortem evidences rendering the diagnosis conclusive. How rare these cases are may be learned from the fact that out of 2000 autopsies at the New York Foundling Asylum, the great majority being upon children under two years of age, not a single case of typhoid was discovered, nor is there clinical record of a single case having occurred in that institution for twenty years. After the second year typhoid is much less rare; it is not of frequent occurrence until after the fifth year, when it is quite common, not, however, assuming the adult phase until after the tenth year.

It is an interesting fact that the bacillus has been but rarely found in the typhoid lesions in children under two years of age. The apparent infrequency of typhoid infection of children through the agency of milk may be partly explained by the fact that in many cases the milk taken by young children has previously been boiled. The incubation period is between five days and three weeks.

The lesions found most frequently in children are an acute swollen condition of Peyer's patches and the solitary follicles in the small intestine, the solitary follicles in the large intestine, the mesenteric glands, and the spleen, which is also softer than usual. There are also found, but much more rarely than in adults, ulcers, superficial and deep, and perforations, the latter exceedingly rare, at least before the age of six or eight years. Degenerative changes in the heart, kidneys and liver are much less frequent as well as less severe than in adults.

Symptoms.—It is to be remembered that the onset is often much more rapid in children, also that the clinic picture is much more indefinite. The cardinal symptoms are: epistaxis, tympanites, the characteristic temperature, the rose spots and the enlargement of the spleen. Other symptoms are: headache, more or less persistent, vomiting, loss of appetite, the dry, glazed tongue, the peculiar facial expression and the low, muttering delirium.

To take them more in detail:

Nose bleed is not found with any regularity.

The condition of the bowels varies.

Tympanites is a fairly constant symptom and sometimes quite severe; constipation and diarrhea are found in about an equal number of cases, except in very young children, where constipation predominates. Diarrhea is rarely excessive, and the stools, though frequently containing mucus, are not often characteristically typhoidal; it is sometimes accompanied by abdominal tenderness and gurgling in the right iliac fossa.

The rose spots are found less frequently, less in number, and are not so characteristic as in adults; they are absent in nearly 50 per cent. of the cases. They are found about the beginning of the second week and remain about seven days.

The spleen will usually be found to be enlarged about the end of the first week, and though usually found but half a finger's breadth below the ribs, it may extend much farther. It is more difficult to palpate than to percuss, because of its relatively greater softness. Either method may be decidedly difficult in an irritable child. Its remaining enlarged is considered by some authors an indication of the continued presence of the disease, even when other symptoms have subsided.

The liver is sometimes also enlarged, but not at all constantly.

The chief points of difference in the typhoid temperature of children are as follow: The initial rise is much more rapid. The remittent character of the fever in the second week is less marked, the average duration much shorter, averaging from eight to nineteen days, these figures being for children under ten years of age. The tendency to subnormal temperature is more marked than in adults, often persisting for a week or longer after normal temperature has been reached. Above that age the rules regulating adult temperature apply. The temperature in the majority of cases rises to 103 and 104; in the severe ones it may reach 105 and 106. Contrary to most febrile conditions seen in children, typhoid fever has a higher temperature in older than younger children. A sudden fall of temperature, as in adults, indicates perforation or intestinal hemorrhage. The temperature may fall almost by crisis in children. Relapses occur in about 10 per cent. of the cases, and do not vary from the same condition in the adult.

The tongue in children may remain moist and but slightly coated, and that in the center only, throughout the entire course of the disease.

Other symptoms to be noted are the pulse, facial expression and disturbances of the nervous system, and emaciation. The pulse, though much increased in frequency, is rarely irregular, compressible or dicrotic, but, on the other hand, functional heart murmurs are quite frequent. Facial expression in severe cases is quite typic, but in the average case is not at all pathognomonic. Headache and mild delirium are very frequent; there is also usually dulness apathy and often semistupor. The extreme nervous

symptoms, subsultus tendinum and coma vigil, are very rare in early childhood. Emaciation is well marked and quite rapid after the first week.

COMPLICATIONS AND SEQUELÆ.

The complications and sequelæ are many, but occur infrequently. Among the most important are the following:

Intestinal hemorrhage is quite rare, occurring in about 3 per cent. of the cases, however, chiefly in children over ten years of age. They are most apt to occur about the end of the seventh week. The mortality is from 30 to 50 per cent.

Intestinal perforation is even rarer than hemorrhage, being only about 1 and mortality about 85 per cent. This condition is usually indicated by sudden fall in temperature, vomiting and tympanites. The usual absence of deep ulceration explains the rarity of the above conditions in children. From the latter condition, in most cases, general peritonitis almost immediately occurs. A less severe peritonitis may result in one of the following ways, according to Earle of Chicago: 1. By migration of the bacillus coli communis through the weakened intestinal wall. 2. By the existence of a thrombolymphangitis or lymphadenitis, and by extension to the peritoneum over mesenteric lymph-glands. 3. By a lymphadenic focus rupturing into the peritoneal cavity.

Meningitis is very rarely seen, aphasia a little less rarely, in most cases not traceable to any organic lesion. Paralysis often lasts several weeks, the child sometimes having to learn to walk all over again. Chorea is not uncommon, disturbance of vision occurs very rarely, hearing is often affected for a short period, and the memory may also be impaired for a time.

Among other complications may be mentioned otitis, which occurs much more frequently than in adults, parotitis, abscess of the liver, periostitis, multiple abcesses, furunculosis and phlebitis, usually of the femoral vein, and post-typhoidal pains. Tuberculosis of the lungs and bones is also seen.

The chief points of diagnosis in typhoid are, the continuous and typic fever, the eruption, tympanites and enlargement of the spleen. Other and more conclusive evidence exists for us in the urine, blood and fecal tests. Briefly, they are as follow:

The urine test of Eberth, known as the diazo reaction, made by adding urine to the following solution: hydrochloric acid, 5 parts; sodium nitrate, .5 per cent. solution, 2.5 parts; water, distilled to make 100 parts. The result is an intense red color. As, however, this reaction is not found with any constancy, and since it may also be found in malaria, measles and tuberculosis, it is to be regarded of but little practical value.

The blood test of Widal is found in about 95 per cent. of the cases to be diagnostic, and is made by adding a drop of blood to a pure culture of the Eberth bacillus previously prepared. The test depends upon the power of typhoid blood to agglutinate or clump typhoid bacilli.

The fecal test usually performed with what is known as Elsner's medium, the potassic iodid of gelatin when added to a fecal solution causes the various bacilli and bacteria to rise in definite order, the bacilli coli communis coming first, next the bacillus of Eberth.

Typhoid fever is to be differentiated from malaria, ileocolitis, meningitis, tubercular meningitis, acute general tuberculosis, empyema and la grippe; from malaria by the character of the temperature, the finding of plasmodium in the blood, and the effect of quinin; from ileocolitis by the greater severity of the symptoms and milder fever-range there found, and by the absence of splenic enlargement, tympanites and the eruption; from meningitis by the presence in that affection of a slow irregular pulse, localized paralysis and the retracted abdomen, and a lower temperature.

In acute general tuberculosis during the first week or so, unless distinct local signs are found in the lungs a differential diagnosis is most difficult; from empyema by the local signs in the chest, by the presence of chills and by a temperature distinctly more septic in character; from la grippe by its slower onset, its not so rapid prostration, and by the absence in typhoid fever of the intense local pains, especially in the limbs. The diagnosis of typhoid fever in California presents especial difficulties by reason of its usually very mild course, and corresponding indefiniteness of symptoms.

The prognosis is, generally speaking, good, unless the previous general condition has been poor. It is considerably modified by the pre-existence of the following conditions: General anemia, chronic bronchitis or emphysema, also chronic disorders of the heart or intestine. The mortality of this disease in children ranges from 3 to 5 per cent., including all cases found both in hospitals and private practice. Death, when it does occur, usually results from pneumonia, intestinal hemorrhage or perforation. Other occasional causes of death are general sepsis, with parotitis, bed-sores, nephritis, meningitis or paralysis of the heart. The third week is the most fatal period.

Treatment.—A question that has frequently arisen in connection with the treatment of typhoid is the following: Can typhoid fever be aborted? Jacobi thinks it a possibility, but in the absence of the test of Widal or that of Elsner, it is impossible to prove that a given case, lasting only a few days, was typhoid fever. Dr. Woodbridge claims that by his method the majority of cases can be aborted. It is worthy of note that out of seven authorities consulted only one mentioned abortion of typhoid as a possibility, and he without reference to the Woodbridge treatment.

As typhoid has an incubation period of from five days to three weeks, it would appear probable that any abortive treatment would arrive too late to be of service.

The treatment is general and special: The general treatment consists in the selection of a large sunny, well-ventilated room apart from the rest of the family, absolute rest in bed, the careful regulation of the diet, intestinal antiseptics and the thorough disinfection of excreta and clothing. Apropos of the patient's room, in cases where it is possible considerable brightening and improving of the patient's condition has been seen by having two adjoining rooms which he occupies alternating weeks, being moved, of course, with great care. The period of rest in bed must extend from a few days to a week beyond the fever period before the patient is allowed to assume other than the recumbent posture.

The diet should consist chiefly of milk, given every three hours. It should be Pasteurized, and if necessary predigested. It may also be diluted with barley water or Vichy. As long as this is well borne and the child does not tire of it no better food can be found. When it is not well borne, Koumyss may be substituted. Should all preparations of milk fail to agree, beef-juice, beef, mutton and chicken broths carefully strained may be given alone or beaten up

with an egg, also egg albumen with barley water and a little brandy. Albuminoids should be given in preference to carbohydrates. Junket is often useful and well liked. As a drink barley water flavored with lemon juice is gratefully received.

Stimulants where needed may be brandy or whisky, 5 to 20 drops well diluted; where these prove too irritating to the stomach, wine, wine whey or champagne may be tried. The latter is often retained when nothing else is. Stimulants are not often required in children and should be used conservatively and stopped should flushing of the face be noticed.

Intestinal antisepsis should be inaugurated by free catharsis with small doses of calomel, the same to be used at intervals throughout the disease in those cases where constipation exists. There are quite a number of intestinal antiseptics from which to choose: beta-naphthol, guaiacol carbonate, zinc sulphocarbolate and arsenite of copper. Personally I usually employ the sulphocarbolate of zinc in doses of 1/6 of a grain every two hours. It possesses the triple advantage of being antifermentative, antiseptic and slightly astringent.

Disinfection of excreta should be rigidly enforced. All discharges should be covered with a 1-1000 solution of corrosive for six hours before being further disposed of. All stained linen should be soaked in an antiseptic solution before boiling, and all clothing and bed linen should be boiled and washed apart from the family laundry. For disinfection of the water-closet, chlorid of lime may be used.

The special treatment consists in attention to the symptoms as they arise.

Temperature, unless over 103, does not require especial attention; above this antipyretic measures should be employed. The most satisfactory in children are: cold sponging with water and alcohol, equal parts, and cold baths—for infants and younger children, beginning with a temperature of 100 and reducing gradually with ice to say 85 F.; for older children, the temperature may be 75 to 80 to start with. The application of cold in this way is always to be preferred to drugs, and is as a rule more safely effective. The baths should be repeated every three hours if the conditions require it. Cold packs may be used instead, ice being rubbed over the sheet for five to ten minutes.

Other measures for reducing fever are: The application of 5 to 10 drops of guaiacol (dissolved in alcohol) over the liver. The effect is decidedly and rapidly accomplished, and, while depression must be watched for, it is much less than is apt to follow the use of phenacetin, antipyrin and acetanilid. The use of these drugs should be omitted, except an occasional dose when other measures fail. Headache, restlessness, nervousness and insomnia are best controlled by the cold bath and cold to the head. Sometimes bromid, with or without small doses of acetanilid, given occasionally will be found very effective.

Diarrhea, when moderate, needs no interference; when excessive, bismuth combined with small doses of Dover's powder will usually be found to be sufficient to control it; if not, acetate of lead may be required. In addition, cold applications are recommended by Jacobi.

Constipation is best treated with small doses of calomel with an occasional enema of warm water and soap; castor-oil may also be given, and in some cases where there is evidence of extensive ulceration it is to be preferred to calomel, on account of its healing effect upon the intestinal mucous membrane.

For tympanites, turpentin stupes, cold applications, enemata containing turpentin or glycerin, and glycerin suppositories are used. Often better than the above is the use of a rectal tube.

Hemorrhage needs prompt action: morphin hypodermically, gr. 1/50 for a child of three years, at once followed by strychnin and digitalis hypodermically, if the condition of the pulse demands it; by mouth, ergotin or turpentin—the latter is the more reliable and is best administered with castor-oil, which insures its being carried completely through the entire intestinal tract—also applications of ice to abdomen.

Perforation is to be treated by morphin, hypodermically, by stimulants and by cool applications to the bowels and heat to the feet.

In heart failure it is better practice to give, from the beginning, small doses of a heart stimulant rather than to wait until threatened heart failure confronts one. For this purpose I am in the habit of giving small doses of strychnin all through the course of the disease, except in mild cases. It is well borne, and diminishes considerably, I believe, the probabilities of a sudden giving out of the heart, obviating as well the necessity of heavy alcoholic stimulants, from which there is more or less reaction and corresponding depression. Should the heart threaten failure, digitalis ought to be added to strychnin. Strophanthus, spartein and caffein are also used; the latter should not be given where delirum is frequent. As an emergency measure there should be injected, camphor (.5 to 1 gr.) dissolved in ether or olive-oil, the former in a 10, the latter in a 20 per cent. solution.

THERAPEUTIC VALUE OF HYPNOTISM.*

BY JNO. R. ROSE, M.D.
EASTMAN, GA.

(Concluded from p. 1042.)

A general anesthesia can be brought about by proper suggestions, and this can be utilized with the happiest results in obstetric practice; I have come across the record of several cases where childbirth took place during hypnosis without the mother being aware of it and in one case refusing to believe it on awakening; in all, this has evidently been due to faulty suggestions given by persons not fully understanding the inhibitory power of hypnosis, and the best plan to pursue is in suitable cases to gauge the inhibition only sufficiently deep to produce freedom from pain or suffering, and not deep enough to cause loss of consciousness nor amnesia on waking.

This inclination or desire on the part of a hypnotized person to translate suggestions into acts through both voluntary and automatic channels is taken advantage of as a therapeutic measure for the relief of pathologic conditions. Dr. Brouardel, dean of the medical faculty of Paris, states the relation of a person in hypnosis to the suggestions made very clearly when he says: "A subject obeys only sympathetic or indifferent suggestions that are given them by a sympathetic person." It is true they refuse even these at times, and different explanations have been given of this phenomenon, by De Jongs, Gilles de la Tourette and others, but the true cause may possibly be found

*Read before the Semi-Centennial meeting of the Medical Association of Georgia, April 19-20-21, 1899.

in autosuggestions resulting from some accidental or obscure condition.

It may be stated on general principles that during hypnosis a person will accept any suggestion that is not directly opposed to his or her moral nature, therefore therapeutic suggestions are generally acceptable, and if properly made will generally be accepted. Right here is where the trouble begins in making the proper suggestions, for the same diagnostic acumen that is required for the successful treatment of diseases by drugs is necessary for treatment by suggestion, and the exact cause of the trouble has to be found in the majority of obscure cases before it can be relieved. It is true that sometimes suggestions on general therapeutic principles are sufficient to relieve disorders by the deep psychic impressions they produce, and on such lines only can we explain the reputed cures by divine healers, "Christian scientists" and faith doctors who make no specific suggestions, but rely principally on the alterative effect of psychic impression. As a rule, if we want to cure a pain, a paralysis or a spasm, we must find the cause, and if it is not an organic lesion of severe nature, the right suggestion properly made will relieve it in nearly every instance. In this way many of the puzzling symptoms complex of hysteria, the paralyses and spasms of fixed ideas or of reflex origin, and that large class of ailments known as neuroses and neuropathies that all show such utter disregard for drugs, may often be relieved with miraculous effect. That the value of suggestion in hysteria has been known since the early days of medicine is proven by that therapeutic "chestnut," the bread-pill, and when we add hypnosis to suggestion we simply intensify the effect, and force this metaphoric bread-pill down an otherwise resisting throat.

Hypnotherapy is pre-eminently the therapy of reflexes which can be brought about or inhibited at the will of the operator, and in this it has but little advantage over drugs, for they can do the same things, although at greater risk. But there is a psychic element that drugs do not possess, or only to a slight degree, that can be utilized with great advantage, for an accepted suggestion becomes a dominant idea that clamors for recognition against all objections. To illustrate what I mean, I will say that to a user of tobacco who desires to quit the habit, but who has not sufficient will-power to resist the craving, I give the suggestion during hypnotism that every time he puts tobacco into his mouth he will be nauseated as long as he keeps it there; this becomes a dominant idea that forces itself on him every time, and he must either spit out the tobacco or throw up his dinner. Unless this suggestion is removed or modified by a subsequent one, it may remain in evidence years after it has been given, which certainly is a quality drugs do not possess, for their effect is as a rule temporary and limited. In this way the physician seems to have control over a vast number of pathologic conditions, and its practical usefulness seems to be limited by only two factors—lack of diagnostic perception in the physician, and absence of suggestibility, or rather predominance of autosuggestibility, in the patient.

We sometimes find persons who enter the condition of hypnosis with the greatest ease, but who in spite of that will accept no suggestion made, even the test suggestion giving no results; such a negative mental condition, negative to influence at least, preventing, of course, the use of this remedy. We all know how we love the patient who insists on doing his own prescribing and only has the doctor around to see it well done, but he is a white-robed angel as compared with his hypnotic brother. In hypnosis we frequently find patients who take our suggestions very well, but at the same time insist on doing a little suggesting themselves, a condition that is known as autosuggestion and found principally among hysteric cases; they require all the tact, patience and experience possible to carry the case to a successful issue, and they will tax the ingenuity of the most experienced to the utmost. In these cases we have what is known as symptom transferences, where we may relieve an existing symptom only to set up trouble somewhere else. A case I have under treatment now will explain what I mean. H., a farmer, about 35 years of age, no neurotic family history, has been suffering for about three years with what his folks call fits; these fits resemble true epilepsy very closely, with an aura beginning in the big toe of the left foot; when this aura reaches the body, unconsciousness sets in and general convulsions supervene. I had been prescribing heavy doses of bromids for this patient, off and on for about two years, without ever seeing him in one of his fits; sometimes he would leave me and resort to some of the patent "fit cures," but all with but little benefit. A few months ago symptoms of paralysis also developed, and when I saw him he had been confined to bed unable to get up for nearly three months, a case of paralysis with convulsions. The patient's appearance, his bright mental condition and the evident relish with which he discussed his physical condition, made me dismiss at once the question of organic trouble. I hypnotized him, although he proved to be rather refractory, and he came sufficiently far under my influence at the first trial to be able to walk all over the room. But right here he began to prescribe for himself, for he got an idea that he could walk only during hypnosis, and it took several treatments and some hard mental work to rid him of this idea. The convulsions proved a less easy foe to vanquish; under suggestion they changed in type and became very erratic, till finally they amounted to little more than a slight tremor, the aura ceased to be a symptom and the spasm did not always begin in the foot, but the fits were still there, though reduced in frequency and severity. I felt convinced from the beginning of this treatment that the convulsions were either ideational or reflex, but I could never find the cause for the reflex; a short while ago I for the first time learned that he is possessed of the fixed idea that he is bewitched, and has had that idea for nearly three years, but has been ashamed to speak of it. This gave suggestion something tangible to work on, and it took only one treatment to stop the attacks entirely for over two weeks, when he had two slight ones in one day, since which time he has been free from them up to the present writing, about a month. During this time he has made a good use of the greatest variety of autosuggestions; at first he could not walk except during hypnosis; then, regarding the convulsions, though they were relieved in severity they were increased in frequency till he had from six to eight a day; regarding the aura, he stuck to it persistently at first, and though I banished it from the big toe it would start in his back, shoulder, arm or stomach. But gradually, by counteracting each autosuggestion, all the symptoms abated till nothing remained but a very light spasm or tremor that recurred about once a day or every other day, and that did not yield till the actual cause, the idea that was at the root of

it, had been removed. This description can only give a faint picture of the many perplexing conditions the physician is forced to handle in such a case, and if Homer had been an M.D. I could readily believe that he had such a case in view when he wrote of the capture of Proteus.

It seems to be acknowledged by every writer on this subject, that hypnotism is a really valuable remedy in all functional disturbances, no matter where located, but how far it can be applied for the relief of organic lesions is still an open question which the literature of the present day does not help us to solve. Some enthusiastic investigators who evidently have accepted and elaborated Braid's and Grimes' theory of the control of the body by the mind, claim to have observed cures in nearly all classes of disease; I have never seen any benefit derived from hypnotic treatment in advanced cases of organic disease, in fact I do not even like to try it for fear of injuring an already tottering nervous system, but it stands to reason that if the causal factors can be removed by suggestion, nature herself would try to cure these cases if she had half a chance.

Bernheim says: "My own experience permits me to assert that the domain in which hypnotherapy finds application is a broad one. It not only is confined to the functional diseases of the nervous system, such as hysteria and the neuroses, but I can point to the results achieved by this method in the organic diseases of the nervous system, in chronic rheumatism, gastric troubles, etc. At first view it may appear a childish undertaking to try to improve or cure functional disorders resulting from cerebral hemorrhage or softening, from rheumatic arthritis or chronic myelitis, by a stimulation of the patient's imaginative force. I know there are enough practitioners who shrug their shoulders and raise their hands to heaven in protest against such therapy; but may they rather study and test before they protest, and they will not escape the necessity to bow before the power of facts. I do not assert that suggestion acts directly on the diseased organs by removing a hemorrhagic congestion, absorbing an inflammatory exudate or replacing cells that have degenerated or been destroyed. Have we then in our materia medica any remedy capable of instituting such a direct process of healing? Diseases cure in their natural course when they are capable of being cured, and our usual therapy consists in placing the organism in those conditions most advantageous for the *restitutio ad integrum*. We suppress pain, modify functions, rest the diseased organ, reduce the fever, bring down the pulse, produce sleep, assist secretion and excretion, and by so doing make it possible for the healing power of nature or, in the language of modern science, for the vital forces of biologic elements to do their work. 'The common therapeutic means we control simply influence function, and just so suggestion acts by its powerful influence."

The only proof we have that hypnotism is capable of causing trophic or metabolic changes in the human organism is the fact, first pointed out by Braid and corroborated by Saint-Martin, Heidenhain and many others, that during hypnosis the subject's vasomotor center is to quite an appreciable extent under the control of the operator, a fact that can be readily proven by anybody capable of producing deep hypnosis. The suggestion of a mustard plaster will not only cause intense burning, but also hyperemia of the surface, though this latter phenomenon may have to be suggested separately. Bernheim, in one of his latest works, cites the case of a person who had some postage stamps stuck to his skin with the suggestion that they were blister plaster and the happy result of drawing, within ten or twelve hours, some beautiful blisters with abundance of serum. By means of this control the physician might cause or relieve congestion, indirectly stimulate or retard secretion and so possibly remove some factors in the causation of disease, but how far this is possible has not yet been demonstrated. It is a fact known to all students of these phenomena, that only those things are invested with reality during hypnosis of which the brain contains a mind picture. So if I say to an ignorant person during hypnosis, "Before you stands a dog," he will see a dog, a real live dog; but if I say to him "Before you stands an ichthyosaurus," he will see nothing, for his brain contains no mind picture of it. And my belief is that the same rule obtains with physiologic and pathologic conditions of the body; if the mind has learned to associate the sound with a certain peculiar and unvarying physical condition, then that condition will be established whenever the sound calls into life the mind picture the brain contains, and then only. To illustrate: Sneezing is a very complicated reflex act of the human organism, but the modus operandi is invariably the same and the mind stores away a conception of it, complete in every detail, in connection with its name; now if I tell an uneducated person during hypnosis that a straw is tickling his nose and will make him sneeze, he will feel the straw and sneeze long and loudly; but if I tell the same person that an existing irritation of the nasal mucous membrane will result in sternutation, there is no sneeze, for he has never associated the act of sneezing with the sound sternutation.

For this reason I believe it is absolutely necessary that the successful operator should be fairly well acquainted with physiology and pathology so as to explain and make clear to his patient those vital processes of which the latter's mind has no conception, if he desires to call such into life and action; at least, working on this hypothesis I have sometimes scored success where everything else proved a failure.

Besides all this there are conditions of disease that rarely, if ever, fall into the hands of the physician, but rather into those of the educator and reformer: diseases that are more of the mind than of the body and in whose genesis heredity, tendency and environment play a prominent part. Into this class we must place kleptomania, dipsomania, homosexuality and other perverted sexual states, onanism, gross perversion of truth, and above all, the criminal instinct in the adult and bad habits in children. My own experience with this class is very limited, but the writings of Wetterstrand, v. Schrenk-Notzing, Krafft-Ebing and Bernheim prove the adaptability of this treatment to such cases, and if once we understand the nature of hypnotic suggestion it would be surprising if it were not so.

The idea of applying hypnotism for the correction of immoral or undesirable tendencies in children is not a new one, and that far-seeing physician and thinker, Dr. Durand, more than thirty-five years ago insisted that hypnotism offered a basis for intellectual and moral training, and that the time would come when it would be one of the means employed in institutions of training and correction. This same question was sprung at the scientific congress held at

Nancy in 1886, when the well-known Paris physician, Dr. Berillon, read a paper on "Hypnotism and Education." The discussion that followed will repay a careful reading, for such men as Liébault, Liégeois, Leclerc, Ladame and Hément took part in it.

Whatever the future may have in store for this therapeutic agent, we must remember that at present we are standing only upon the threshold of a science that is to most like an unknown country into which few have ventured, and none far. If that old philosophic speculation of a universally present ether were true, an ether of which the various conditions of matter are only different expressions, and that the higher expressions influence and dominate the lower—a theory that has received a modern impetus through the investigations of the electrician Tesla—then we could understand how the mind, being perhaps the highest expression of this ether, might control the body; but so far, all is speculation, and from a scientific point of view we can only accept what has been proven.

Hypnotic suggestion in medicine is well worthy of the careful attention of all properly trained investigators, and in their hands can do no harm, while in the hands of the ignorant or vicious it may prove a boomerang that will knock out both the victim and the thrower. Hypnotic suggestion is of value not because it is capable of supplanting drugs, but because it frequently acts where drugs fail, and that is the actual therapeutic value of this treatment.

In conclusion, I will say that, as hypnotic suggestion is a thought implantation, the grafting into a brain of a new idea that will become fixed and dominant if not destroyed when its usefulness is passed, it is well for the operator, whether he use this means for sociologic, educational or medical purposes, to exercise care lest he implant a thought utterly alien to the new soil—for that way trouble lies. To be even moderately successful one must be able to think in the subject's sphere of thought, and reason within the subject's mental limits, so as to quickly counteract and remove the evil effects of autosuggestion in a quiet, and to the subject natural, way. Regarding the two principal methods of inducing hypnosis it may be said that the fixation-and-shock method of the school of Paris has been superseded by the gentler method of verbal suggestion wherever the latter has been accorded an unbiased trial or else its place has been taken by a combination of the two in which the shock has been more or less eliminated.

The following four rules formulated by Bernheim and Beaunis should always guide the physician when undertaking this treatment:

1. Never use hypnotism without the consent of the subject or his legal guardian.
2. Never produce hypnosis except in the presence of a third party standing in some relationship to the subject.
3. Never make suggestions without the patient's consent except those necessary to effect a cure.
4. Never use your authority over your patient to procure this consent if you have reason to expect disagreeable results from the experiment.

To which I wish to add another one.

5. Carefully weigh your words.

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Correspondence.

Competitive Examinations.

CHICAGO, May 13, 1899.

To the Editor:—The letter from Dr. Bayard Holmes (see April 29, p. 927) and one in the JOURNAL of May 13 (p. 1043), from "R." of Cincinnati, concerning the written examinations for internes of the Cook County Hospital, present a subject of interest to graduates and well-wishers of the institution. It is perfectly obvious that a purely written test of an applicant's knowledge of medical science and practice can never be a good test. As Dr. Holmes says, this method of conducting the hospital examination has resulted in causing the promising men in the medical schools of Chicago to spend the last year of their course in cramming with word knowledge and to devoting their time to quizzes, to the neglect of the clinic and other legitimate work of the year; this too, with the approval of the faculties. The men who carry off the prizes get their clinic experience in plenty from their hospital course, it is true, but how about the ninety-and-nine who fail? These have wagered everything on getting the hospital position and find themselves with their last year wasted in the acquirement of parrot learning, which quickly evaporates. What, too, of the hospital service which must train its internes in preliminary clinic work which should have been mastered before entering? The present examinations are vastly better than none, for without them we should have the medical service entirely given over to politics, whereas now it is only the attending staff which is thus appointed.

In the present style of interne examinations the only practical part consists in looking through a microscope and then writing down at lightning speed a description of what has been seen. The truth of the matter is that the members of the attending staff, who conduct the examinations under the supervision of a senior interne, can not trust each other. So great is the fear that the examiners will know whose paper is before them that extraordinary precautions are taken to insure secrecy. The candidate is given a number which he writes on the outside of an envelope containing a slip on which is the name. The chief interne, supervising the examination, makes another set of numbers, so that each candidate has two numbers, one known to him and the other to the chief interne. The first number is written on each examination paper; the chief interne, as he gathers up the papers, erases that number and replaces it with the candidate's corresponding number. The papers are marked by the members of the attending staff according to the second number and the percentages announced at the meeting of the staff. The chief interne then identifies each second number by the first or envelope number. The envelopes, which have meanwhile been in the possession of another party, are then opened and the names of the candidates ascertained. But this is not all. In some years the examiners are chosen only from those members of the staff who are not medical teachers, that is, from those supposedly least qualified by experience to examine. In some years three men examine on each subject. Each brings in five questions and from these fifteen are selected five to be answered by the candidates. Then the three men each examine and mark the papers and the mark for the subject is the average of the three. All these elaborate and pedantic precautions that the identity of the candidates be not known to the examiners! How preciously fragile the virtue of these examiners must be! But, one may say, are not these examiners members of the attending staff, among the Nestors of the profession, jealous of their own honor and desirous of obtaining the best material to serve under them as internes? Can they afford to have anything less than the best obtainable? The melancholy answer is that the members of the attending staff are appointed by fifteen politicians, the county commissioners,

serving for two years and, for the most part, ordinary ward workers. Every new set of commissioners appoints a new attending staff, the positions on which are political plums awarded to the faithful. A certain number of men eminent in the profession are always appointed (the devil can even quote scripture you know), a certain number of mediocre doctors and a certain number who are worse. The presence of these last makes all the elaborate precautions against dishonesty necessary. The present staff, eminent and honest as its members may be, has a tenure of office only as long as that of the present board of commissioners and may be succeeded by one worse than some of its predecessors. It is therefore necessary to continue the existing method of examinations for internes in the Cook County Hospital as long as the existing method prevails of appointing the attending staff of the institution. The moral is obvious.

HENRY F. LEWIS, M.D.

Some Thoughts on the Management of Inebriety.

MAYVILLE, OHIO, May 16, 1899.

To the Editor:—In the face of the knowledge we have of alcoholism, through the investigations of Norman Kerr and others whose opinions we have reason to respect, a recent editorial in the *Medical Record* and contributions with a similar trend in various journals are a little surprising. Although the domain of the physician is not the teaching of ethics, he is not true to his high calling who advocates that which, to a mind imbued with the first principles of altruism, is impossible and irrational. If it were practicable, I wish Dr. Bowditch could obtain the number of those who, contemporaneous with the "leading men" embraced in his statistic report, have made wrecks of life and fortune by making the effort to be occasional drinkers or regular moderate drinkers. And it would be interesting to know how many of his "leading men" have sclerotic arteries, damaged hearts, livers and kidneys, through their unnecessary indulgences, and have made themselves easy preys to acute infections and have greatly enhanced their chances of sudden death from apoplexy.

One of the things to be combated in the treatment of alcoholism is the depraved moral nature our patients possess. This is a characteristic even of those who have been so-called moderate drinkers for any extended period. This exists in all degrees, from transient and moderate periods of moral obliquity to continuous and complete abandon of self-respect and utter disregard of the rights of others. Our patients possess a complexity of symptoms, not only from their excesses, but also from the social environment which alcoholic excesses ordinarily imply, together with nervous systems, weak and unstable by inheritance, and whose every activity has been induced by stimuli that had their inception in an atmosphere of viciousness. In fact, I am fully satisfied that this induced moral depravity often exists in such a degree as to render permanency of cure impossible, be the term of treatment never so extended.

After years of experience, I am convinced that the short-time treatment (four to eight weeks), in curable cases, is just as definite in its results as the long-time treatment, while the latter has many disadvantages: 1. The married business man in moderate circumstances can not afford, neither can he be induced, to leave his home and business for protracted time treatment. And this is the class from which we get our most satisfactory cases and most brilliant results. 2. The danger of acquiring the sanatorium habit, for our patients become accustomed to lean on unnatural supports and not on self. The physicians in charge are applied to for the relief of every uncomfortable sensation. Doing nothing is made desirable by the pleasant appointments and associations of sanatorium life, and our patient is returned to his friends with an increased, rather than a diminished, degree of helplessness—because indolence and sobriety, in one who has a tendency to inebriety, are incompatible. I do not wish to be understood as saying that all the pathologic changes wrought by the continued use of alcohol can be removed by from four to eight weeks' treatment; but that, in that time, necessity and desire for stimulation is removed, liberal quantities of food are relished and digested, normal sleep is secured, and nature completes the restorative process. It is well understood that nature, either aided or unaided, can not repair some of the lesions resulting from the use of alcohol. Very frequently, to assist nature, we give our patients some form of arsenic or chlorid of gold and sodium, or both, to be taken for variable periods of time, according to the exigencies of the case, after their return home.

Genuine cases of dipsomania, which should be distinguished from other forms of alcoholism, require not only one year's treatment, as suggested by Dr. Brower, but, like other forms of insanity, should be committed for indefinite periods.

CHARLES D. MILLS, M.D.

Cremation vs. Burial.

PERU, IND., May 13, 1899.

To the Editor:—Regardless of what may have been the ancient customs or are the modern methods of disposing of the dead, regardless of whims and fancies pro and con, there is but one sanitary method, but one method which is safe for the living, but one method which is acceptable to the dead, and but one method which is justice to nature—that of cremation.

From a sanitary standpoint, what is more elegant, more beautiful, more esthetic and cleanly than resolving the organized body into its original elements by a rapid, safe and thorough method—cremation—as against the disgusting, horrifying, slow, unsafe and inelegant method—putrefaction? Death is robbed of many of its horrors when we remember that our dear old body, even though it may have been an aching and ugly one, is to be rapidly transformed or changed, as it were, into oxygen, hydrogen, nitrogen and carbon, the four elements of which all living organisms are in the main constructed. It is pleasing to know that our bodies may thus be restored to nature, ready to again be claimed by organized life.

When we regard the lives, health and safety of the living, there is no choice—cremation, and that alone, offers security from infection and transmission of disease from this source, that of the dead. A body after interment must sooner or later undergo putrefaction, the elements of which, together with such disease germs as may be present, are carried to the surface in various and many ways, and thence to the air and water-channels, and he who escapes is more lucky than wise. It is thus that disease is being rejuvenated without a cause apparent. The cemetery is a menace to the living, an enemy to nature, and an usurper of the dead. The cemetery, with all its paraphernalia, should be abolished, and in its stead parks established, which should be beautiful and rendered comfortable and inviting with the money which has heretofore been spent for tombstones, vaults, etc.; that the living may have a beautiful place of assemblage where they may muse, with safety and surroundings of cheerfulness, of the happy disposal of the bodies of their dead relatives and friends; as against the mournful and hazardous visit of the cemetery, where everything is suggestive of sadness, and we are forced to remember the imprisonment of our dead friend's body in a putrid tomb. The modern faddist is not content to imprison or inter the body in the ordinary way in light casket and thin outward box, which requires from two to five years for the elements to be liberated, but he insists on having a stone or brick vault enforced by a metallic casket, which combination drags out and prolongs the term of imprisonment to an indefinite period. Nature, having dealt with us so generously and kindly in yielding up her elements to form us a physical being or body during our journey from the hill-top on the left to that of the right,

should, now that the journey is ended, be allowed, yea, assisted, to claim her own without hindrance or delay. While it may seem a little shocking to think of or see the incineration of a body, it is horrifying to think of or see a body in state of putrefaction. Incineration need not interfere with the religious belief which calls for resurrection of the body; if the elements can and are to be collected after the process of putrefaction, the same may be equally true of cremation.

Burial, putrefaction, disease, death and sorrow. Cremation, health, happiness and longevity.

J. O. MALSBURY, M.D.

The Tobacco Habit.

MINNEAPOLIS, MINN., May 9, 1899.

To the Editor:—Will you permit me to voice a word of commendation for the able, possibly somewhat extreme, but in the main, just, statement of the facts connected with the use of tobacco, contained in Dr. Woods' article in the JOURNAL of April 1. Dr. Woods is entitled to the thanks of every clean-minded and clean-bodied man and woman for such an arraignment of the profession for throwing its influence in the direction of such debasing forces. I can not believe that many men, even among users of tobacco, would say "amen" to Dr. McKenna's attempted reply in the JOURNAL of April 22. I have known a great many users of tobacco, but I have known very few of them who were willing either to commend the habit or to recommend it to their sons and daughters. If tobacco is as desirable as Dr. McKenna seems to think, why should its advantages be denied to our wives and daughters? I met a hard-headed business man this morning and asked his opinion. He said: "I have always used tobacco and when a young man I drank like a fish. I determined to quit whisky and I have never drank since. I have made a hundred such resolves to quit tobacco and am using it still." We have all heard numbers of such testimonies and yet in the face of this and the associated facts a supposedly intelligent physician will calmly deny that the tobacco habit is selfish, immoral and degrading. The very possibility of such denial is abundant proof of the thing denied. Very respectfully,

EDWARD J. BROWN, M.D.

Feeding in Typhoid.

CINCINNATI, OHIO, May 10, 1899.

To the Editor:—It is the generally accepted opinion that typhoid fever patients should be placed exclusively on a liquid diet. I am constrained to believe that this practice is the out growth of custom or tradition, handed down from generation to generation, and not the result of clear or practical observation. It is, I believe, generally conceded, and I do not know why, that the giving of solid food retards the recovery of the patient and predisposes to relapses.

Starting out with a desire to test this matter more thoroughly and to prove, if possible, the contrary to be true, I have, in my private practice, for some time given nearly all of my typhoid patients some solid food in connection with liquids. I do not wish to be understood as saying that I have given them quantities or great varieties. I have allowed them to have steak (tenderloin), sweetbreads, soft boiled egg, toast and a few vegetables, when in season. One thing I have observed, patients on a mixed diet do not complain nearly so much of gastric distress, of the fulness and distension (flatulence) about the stomach and bowels, as when confined exclusively to a milk or liquid diet.

I confess, I can see no objection to a limited amount of solid food, if properly prepared for the mouth and stomach; in other words, properly cooked and served. One thing I have not failed to observe, viz., patients kept exclusively on a milk diet are almost invariably constipated, just the contrary that we would expect in typhoid. I think that I may safely assert that 90 per cent. are constipated, requiring cathartic medicine or clysters, or both. The contrary condition has existed in the cases when I have allowed a mixed diet.

It is, I believe, the consensus of opinion that the giving of solid food to patients tends to relapses; such has not been my observation. In the twelve cases where I pursued the plan of giving a limited amount of food, there has not been a single recurrence of disease within the usual period. I think this sufficient argument to prove that the careful giving of solids has nothing whatever to do in bringing about relapses. When they have occurred after the giving of food, it has simply been a coincidence and would have occurred in any event.

The matter of feeding these patients should be more thoroughly studied and practiced by the profession at large. It is high time that we get out of the rut of our forefathers and adopt a more rational and liberal plan. I do not mean reckless extravagance in the other direction. Where relapses do occur in these cases it is due to the fact that the poison has not been wholly eliminated and the local lesions not entirely healed. With both banished there can be no such thing as relapse.

W. H. DEWITT, M.D.
Chief of Staff, Christ's Hospital.

Formerly Physician to City Hospital and Longview Asylum for Insane.

Cerebellar Tumor or Masturbation.

DELPHOS, OHIO, May 13, 1899.

To the Editor:—In the last issue of the JOURNAL, p. 1027, R. C. Cabot, M.D., describes a case, and asks, "Can all the symptoms of this case be explained by the masturbation?" I would say emphatically, "No." The masturbation was a result, not a cause. The treatment or nature removed the cause, and then the mental impression received at the hospital enabled him to cease the practice. C. V. MOOTS, M.D.

Parasitic Theory of Cancer.

BUFFALO, N. Y., May 11, 1899.

To the Editor:—On page 1000 of the JOURNAL for May 6 is a brief allusion to an address which I gave the other day in Baltimore on "Cancer as a Parasitic Disease." Your correspondent has made a curious mistake and has given me credit for saying just what I did not say. He has made me declare my "abhorence of the parasitic theory," when the whole address was an argument in favor of the same. I do not exactly like to go on record in this way, and if you will kindly correct it you will do me a great favor.

Very truly yours, R. PARK, M.D.

Army Transports to the Philippines.—On the afternoon of April 31, 1899, two army transports sailed from San Francisco, Cal., for Manila, P. I., the transport *Warren*, formerly the *Scandia*, and the chartered transport, *Newport*. The former carried eight batteries of the Sixth U. S. Artillery, 300 recruits of various regiments serving in the Philippines, and 50 members of the hospital corps. The medical officers on board were Major Guy L. Edie, brigade surgeon, vols.; Lieutenants E. H. Hartnett and W. J. Calvert, assistant-surgeons, U. S. Army, and Acting Asst.-Surgeon E. E. Persons, on duty with the troops, while Acting Asst.-Surgeon R. E. Williams was assigned as transport surgeon. The *Newport* carried two light batteries, F of the Fourth and Fifth Artillery regiments, and a battalion of 260 marines, with Acting Asst.-Surgeons Harrold L. Coffin and Robert F. Robinson. Several female contract nurses and Red Cross nurses were passengers on this transport. Both vessels had ample hospital accomodations and medical supplies for six months for the commands on board.

Current Medical Literature.

Titles marked with an asterisk (*) are noted below.

Annals of Surgery (Phila.), May.

1. *Partial Enterocele. Russel S. Fowler.
2. *Observations on Use of Galvanic Current in Treatment of False Ankylosis. Fred Walker Gwyer.
3. *Tubercular Cervical Lymph-Nodes. A Study Based on Thirty-six Cases Submitted to Operation. Charles N. Dowd.
4. *Decortication of Tongue in Treatment of Lingual Psoriasis. Joseph Ransohoff.
5. Congenital Deformity due to Malposition of the Scapula. Albert H. Freiberg.
6. *Case of Transposed Viscera, with Colelithiasis, Relieved by a Left-Sided Cholecystotomy. Carl Beck.
7. Complete Single Sacroiliac Dislocation. William B. Hopkins.

Quarterly Journal of Inebriety (Hartford, Conn.), April.

8. *Dietetic Causes of Inebriety. Thos. D. Crothers.
9. Some Conclusions in the Treatment of Alcoholic and Drug Inebriates. J. M. French.
10. Treatment of Inebriates. A. M. Rosebrugh.
11. *What Class of Injuries to the Human Body Dependent on Violence is Caused by Alcoholic Excesses? T. H. Manley.
12. *Cocain Addiction and its Diagnosis. Stephen Lett.
13. Treatment of Inebriety. H. A. Rodebaugh.
14. Toxic Effects of Tobacco. Geo. W. Crook.

Ophthalmic Record (Chicago), May.

15. Report of a Case of Herpes Zoster Ophthalmicus. Adolph Pfingst.
16. Case of Macular Retitinis Due to Flash of Electric Light. H. V. Würdemann and W. R. Murray.
17. *Use of Egg Membrane in Ophthalmic Surgery. David H. Coover.
18. Pyoktanin (Blue) for Ophthalmia Neonatorum. L. R. Culbertson.
19. Treatment of Diseases of the Lachrymal Duct by Cataphoresis. George F. Keiper.
20. Varicose Veins in the Orbit. R. Denig.
21. *Albuminuric Retinitis as an Element of Prognosis in Bright's Disease. F. C. Rogers.
22. Foreign Body in the Iris Thirty-two Years. M. T. Jay.

Buffalo Medical Journal, May.

23. The Term "Conservative Surgery" as it has Been Proposed to Apply it to the Uterus and its Appendages. Lawson Tait.
24. *Some Points in Incipient Orthopedic Cases. Marcell Hartwig.
25. *Urinary Infection—Its Prevention. J. Henry Dowd.
26. Tubercular Peritonitis, with Report of Cases Apparently Cured by Laparotomy. Thomas Jameson.

New England Medical Monthly (Danbury, Conn.), May.

27. *Disinfection of the Alimentary Canal. A. Jacobi.
28. *Albuminate of Iron. L. H. Watson.
29. *Practical Points in the Management of Skin Diseases in Children. L. Duncan Bulkley.
30. Lithemia. Allen P. MacDonald.
31. Physical Education. Charles P. Robbins.

Columbus Medical Journal, April.

32. *An Oculist's Experience with the Army. John J. Kyle.
33. Some Peculiarities in the Diseases of the Nervous System in Infancy and Childhood. Katherine Burns.

Memphis Lancet, May.

34. Interesting Cases of Genito-Urinary Surgery. F. Kreissl.
35. Surgical Treatment of Infections of the Uterus During the Puerperium. Wm. W. Taylor.
36. *Use of Rest in Bed in the Combined Form of Feeding in the Treatment of Gastric Ulcer. James M. Anders.
37. *Remote Effects of Eye-Strain. E. C. Ellett.
38. *Antiseptic and Eliminative Treatment of Typhoid Fever. T. Virgil Hubbard.

University Medical Magazine (Phila.), May.

39. *Late Result in a Case of Implantation of Sponge in the Orbit after Enucleation. S. D. Risley.
40. *Observations on Laryngeal Paralysis Dangerous to Life Occurring During the Progress of Typhoid Fever. Alexander W. MacCoy.
41. *Hypnotic Suggestion as a Practical Aid to Medicine. J. Madison Taylor.
42. *A Successful Iridocystectotomy. G. Oram Ring.
43. Influence of Turbinal Hypertrophy on the Pharynx. Lewis S. Somers.

Pennsylvania Medical Journal (Pittsburg), May.

44. *Amyloid Disease of the Liver, with an Abnormally Enlarged Left Lobe. J. H. Musser.
45. Paralytic Dementia. W. K. Walker and Theodore Diller.
46. Technic of Abdominal Surgery. Charles E. Gibson.
47. Treatment of Pneumonia. E. D. Payne.
48. *Diphtheria. James Gass.

Medical Dial (Minneapolis), May.

49. *Gall-stone Surgery. Cnut Hoegh.
50. Fibroid of Left Vocal Band. B. M. Behrens.

Yale Medical Journal (New Haven, Conn.), May.

51. *Cell Division in Carcinoma. H. B. Ferris.
52. *Infective Otitis. F. M. Wilson.
53. Treatment of Headaches. Robert E. Peck.
54. Surgical Shock. H. G. Anderson.

North Carolina Medical Journal (Charlotte), May.

55. Disorders of Digestion. John N. Upshur.
56. Chronic Diarrhea. Robert L. Payne.
57. Treatment of Summer Diarrheas of Infancy. Alfred Stengel.
58. Tetany Complicating Gastro-Intestinal Catarrh. J. A. Faison.
59. Intestinal Antisepsis. J. A. Ritchey.

Journal of Tuberculosis (Asheville, N. C.), April.

60. Plea for Better Appreciation of Tuberculin Test for Latent Tuberculosis. Charles A. Denison.
61. Tuberculin Test in Early Diagnosis of Tuberculosis. H. Longstreet Taylor.
62. Report of Twelve Cases of Pulmonary Tuberculosis. John Hay Williams.
63. Care of Digestive Tract in Tubercular Patients. H. J. Chapman.

Brooklyn Medical Journal, May.

64. *Change of Residence for Consumptives. J. C. Schapps.
65. An Improved Reflux Catheter. V. Neesen.
66. *Effect of Toxins of Pathogenic Micro-organisms on the Parenchymatous Tissue. J. M. Van Cott.

Journal of Cutaneous and Genito-Urinary Diseases (N. Y.), May.

67. *Varying Resistance Encountered in Electrolytic Work and the Necessity for Using a Milliampéremeter. M. B. Hutchins.
68. *A Few Remarks on Diagnosis and Treatment of Rupture of Bladder. Paul Thorndike.
69. *New Agent for the Treatment of Alopecia Areata. Granville MacGowan.

North American Medical Review (Washington, D. C.), May.

70. Infectious Diseases, Including Tuberculosis, Pathology and Treatment. N. B. Shade.
71. *Albuminuria of Pregnancy. Lambert Ott.
72. Pseudo-Membranous Croup Treatment. H. P. Fahrney.
73. Medical and Legal Aspects of Hypnotism. Wm. C. Boteler.
74. Some Thoughts on Neurasthenia. James L. Lowrie.
75. Paraphimosis. A New Treatment. LeRoy Lewis.

Louisville Journal of Surgery and Medicine, May.

76. A Surgical Mistake or Two. Ap Morgan Vance.
77. Importance of Colon as a Factor in Digestive Process. Thos. Hunt Stucky.
78. Ischiorectal Abscess and Its Treatment. T. H. Garvin.
79. *Subconjunctival Injections in Corneal and Iritic Inflammations. Arthur W. Smyth.
80. *Unusual Symptoms of Paralysis. T. O. Helm.
81. *An Improved Method of Vaccination. Edward Speidel.
82. Finger in Exploring and Manipulating the Uterine Cavity. D. G. Simmons.
83. Mechanotherapy. Curran Pope.

Journal of Mississippi State Medical Association (Biloxi), May.

84. *New Method of Diagnosis for Yellow Fever. John C. MacKowen.

Richmond Journal of Practice, April.

85. *Report of Some Cases Illustrating the Uterine Reflexes. John N. Upshur.
86. *Methods of Closing the Abdominal Incision after Section. Stuart McGuire.

Indiana Medical Journal (Indianapolis), May.

87. Investigation of Digestive Activity of Stomach (Continued). Alois B. Graham.
88. Pemphigus Vulgaris Acutus—Report of a Case. Homer I. Jones.
89. Accidents from Vaccination—How to Prevent Them. Isadore Dyer.
90. Remarkably Enlarged Nails in a Case of Hypertrophic Pulmonary Osteoarthropathy. A. W. Brayton.
91. Kraurosis Vulvæ. L. H. Dunning.

Northwestern Lancet (Minneapolis), May.

92. *Choice of a Climate for Consumptive Patients. R. M. Phelps.
93. *Use of Hot Air in the Treatment of Diseases of Joints. Arthur J. Gillette.
94. Advice for Young Practitioners. W. S. Leech.

New York Medical Journal, May 13.

95. *Phocomelus of Humerus in Epilepsy as a Stigma of Degeneration, with Report of Two Cases. L. Pierce Clark.
96. *Inhibition. S. J. Meltzer.
97. *Intrauterine Vaporization. Abram Brothers.
98. *"Inertia" and Pedicle-twisting. Charles P. Becker.
99. *Complete Laceration of Urethra, with the Report of a Case. Arthur Stern.
100. *The Coated Tongue. W. H. Weaver.

Boston Medical and Surgical Journal, May 11.

101. *Hysteria Simulating Acute Visceral Inflammation. William H. Robey, Jr.
102. *Poisoning During Chloroform Anesthesia in the Presence of a Naked Flame. Kenelm Winslow.

Medical Record, (N. Y.), May 13.

103. *Hernia Guarantee and Minimum of Confinement after Operations for Appendicitis With and Without Pus. George M. Edebohls.
104. Naupathia. Edwin K. Losee.
105. *Successful Excision of Gastric Ulcer. Hermann Grad.
106. *Scientific and Practical Medical Aspects of Public School Inspection. Francis Reder.

Cincinnati Lancet-Clinic, May 13.

107. Historic Medicine. James F. Heady.
108. The Old Guard. James T. Whittaker.

Medical News (N. Y.), May 13.

109. *Limitations of Conservative Surgery on Female Genital Organs. George Ben Johnston.
110. *Use of Formaldehyde Gas as a Disinfectant for Dwellings, Vehicles and Household Goods. William H. Park.
111. Otology: Its Relation to General Medicine. G. Griffin Lewis.

Philadelphia Medical Journal, May 13.

112. *Lithemia. B. C. Loveland.
113. *Use of Quinin in Malarial Hemoglobinuria. C. C. Warden.
114. *Etiology of Scarlet Fever. W. J. Class.
115. Calculus Pyelitis with Co-existing Biliary Calculi and Presence in the Blood of Estivo-Autumnal Organisms. Richard J. Mauss.
116. *Hysteric Muscular Paradox. Charles J. Aldrich.
117. *Convenient Antisepsis. Comegys Paul.
118. *Necessity of Force in the Treatment of Colles' Fracture of Radius. John B. Roberts.

Medical Review (St. Louis), May 13.

119. *Cystoscopy in the Male. T. C. Witherspoon.
120. *Some Thoughts on Diphtheria. I. N. Love.

Maryland Medical Journal, May 13.

121. Limitations of Conservative Surgery of the Female Generative Organs. George Ben Johnson.
122. *Tonsils as a Menace to the Organism. John R. Winslow.

AMERICAN.

1.—**Partial Enterocele.**—Fowler reports two cases of Litre's hernia from personal observation, and reproduces four cases of Treves' and one of Dent's in abstract. He discusses the literature at length and gives a full bibliography at the close of his paper.

2.—**Galvanic Current in Ankylosis.**—Gwyer recommends the use of this current in stiffness of the joint from synovitis, sprains and injuries, and believes that all cases of false ankylosis of traumatic origin are benefited more or less by the galvanic current, that the sooner the treatment is commenced the more rapid and general the effects, and that the effects are more rapidly produced than by any other method excepting, perhaps, the hot-air treatment. It has the advantage over hot-air treatment in that it is not accompanied by danger from burning, provided care is used, and that in the latter no electrolytic action takes place as with the use of the galvanic current. In cases of false ankylosis due to disease, pain is relieved though motion is less likely to be improved. That due to gout is least affected of any. All cases in which the treatment is to be effectual, will show improvement during the first two or three applications.

3.—**Tubercular Lymph-Nodes.**—Dowd, on the strength of thirty-six cases submitted to operation, believes we are warranted in advocating the removal of the tubercular cervical lymphomata excepting where the general condition prohibits operation. The operation should be thorough and observation be kept up to supplement it with other removals if necessary.

4.—**Lingual Psoriasis.**—Ransohoff reports in full a case of leucoplakia of the tongue in which the diseased portion and the underlying tissues were entirely removed. Microscopic examination confirmed the diagnosis of ichthyosis papillaris. He mentions two other cases also operated on, and on account of the tendency of these growths to malignancy and their obstinacy to other treatment, he is inclined to recommend operation in all these cases.

6.—**Cholelithiasis.**—Beck reports a case and illustrates it with skiagraphs and diagrams of transposed viscera in which the condition was recognized and cholelithiasis performed on the misplaced gall-bladder.

8.—**Causes of Inebriety.**—Crothers believes that many cases of inebriety originate in dietetic errors, bad habits of eating, etc., the deranged digestion finding its relief in alcohol, and this in turn aggravating the condition and producing the drink habit. Many cases originate in dietetic delusions; in some of these a systemic starvation exists, due to the peculiar notions held in regard to food. The treatment of this form of inebriety consists essentially in the elimination of toxins and proper nutrition.

11.—**Injuries From Alcohol.**—Manley calls attention to the fact that a large proportion of accidents, involving surgery, are due to intoxication on the part of the victims, and dwells on its forensic importance. The question of contributory negligence from alcoholism, the administration of alcohol by the laity in cases of injury, etc., are noted, and the effects of drinking habits in favoring complications or retarding recovery are among those he mentions.

12.—**Cocain Addiction.**—Lett states that cocain habitues are largely produced by the various proprietary preparations on the market. The amount taken by them daily varies within very wide limits—from a fraction of a grain to even 60 or 90 grains. He describes the symptoms, beginning with abnormal nervous erethism, insomnia, etc., leading to intense physical and mental depression and finally, to dangerous paranoiac insanity. The diagnosis of the habit in its less manifest stages is by urine analysis, and he describes in detail his method of preparing urine, and the tests—that with terchlorid of gold and that with Myer's reagent.

17.—**Egg Membrane in Ophthalmic Surgery.**—Coover reports four cases of ophthalmic surgery including one of symblepharon, one of iridectomy and two of ulceration in which he used egg membrane to cover the raw surface and give time for tissue growth and prevent infection. He believes this membrane has a wide field of usefulness in ophthalmic surgery.

21.—**Albuminuric Retinitis.**—Rogers discusses the question as to the importance of albuminuric retinitis as a prognostic element in Bright's disease. He discusses the literature and briefly tabulates fifteen cases that have been under observation for sufficient length of time, three of which are briefly reported, as a result of his study, and concludes that about seven patients out of ten who develop an albuminuric retinitis during the course of either of the three forms of chronic nephritis die within a year, and nine out of ten within two years.

24.—**Incipient Orthopedic Cases.**—Hartwig warns against slighting diagnosis of slight matters that may indicate joint or bone disease. It is better to take the safe method and treat it for the worst. He also emphasizes the necessity of careful examination of new-born infants for defects which can be better remedied early than later, and also sometimes more readily recognized. He regrets the decadence of the family physician with the growth of specialism as favoring the non-recognition of defects in early life when they can be best remedied.

25.—**Urinary Infection.**—Dowd emphasizes the need of caution in examining the genito-urinary tract, especially the use of the catheter and sound without due antiseptic precaution. They should be preceded and followed by injections of an antiseptic solution preferably formaldehyde. Many cases of bladder disease are due to just this kind of interference without antiseptic precautions.

27.—**Disinfection of Alimentary Canal.**—Jacobi very thoroughly discusses the question of disinfection of the entire alimentary tract. He takes up the function of each part and shows how nature meets emergencies and also describes the interference with its processes by bacteria and other agents and the means to meet the conditions as they occur. He advises practitioners not to be guided too much by the results of experiments made in the laboratory as opposed to clinic experiments.

28.—**Albuminate of Iron.**—Watson recommends this form of iron as in every way the best preparation in cases where iron is needed to supply a want in the system, and states that his experience confirms this opinion.

29.—**Skin Diseases in Children.**—Bulkley gives practical points as to the management of various skin disorders as they occur in young children. Eczema in early life indicates faulty nutrition and the diet should be attended to; if nursing, that of the mother; if later, the child's food must be especially looked after. He gives a description of a method he recommends for the preparing of wheat, which has been already described in this JOURNAL, page 840. He warns against the use of castile soap in these cases, and tar soap is also sometimes irritating. The general treatment of eczema in children is detailed. Other skin diseases mentioned are syphilis; ringworm, which is sometimes very obstinate when located in the scalp, and is also contagious; urticaria, herpes, impetigo contagiosa and nevus.

32.—**An Oculist's Experience.**—Kyle briefly reports some of the experiences met with by him during the Spanish-American war as army surgeon, the difficulty of detecting ocular defects in recruits, the need of instruments for the treatment of such conditions, etc. He found in Matanzas that the great majority of cases of conjunctivitis that occurred, on microscopic examination, confirmed the statement of Gifford that the pneumococcus is the most frequent cause of the disorder.

36.—**Gastric Ulcer.**—Anders reports a case as illustrative of gastric ulcer and discusses the diagnosis, prognosis, etc. The treatment is simple and he advises the rest in bed method, keeping the patient absolutely in a recumbent position and using rectal feeding as far as possible to rest the stomach. The drug treatment is the least important and mainly symptomatic.

37.—**Eye Strain.**—Ellet discusses the special affections that have been attributed to eye strain and relieved by its removal. Very few cases of circulatory or respiratory disorders have been thus attributed, but he thinks he has himself observed a conjunctival hyperemia extending into the nasal mucosa. Skin disorder would hardly be expected from this cause, but Oliver has reported a case of urticaria evidently due to ocular defects and relieved by glasses. In the genito urinary apparatus some disturbances have been reported as relieved, and Prentice holds that some of the symptoms of diabetes can be thus ameliorated. Ellett evidently has some doubt as to this possibility. Muscular spasm, gastro intestinal disturbances are mentioned, and of the latter, nausea, sick headache, etc., from the trouble, are examples. The nervous system, naturally, is the chief sufferer, and ophthalmologists' case-books are bountifully supplied with instances of its involvement. Eye headache, eye vertigo, etc., are well known. Epilepsy and chorea, of which so much has been written by Stevens and Ranney, are mentioned judiciously by the author, who says that he has personally had no success with the eye treatment of epilepsy.

38.—**Treatment of Typhoid Fever.**—Hubbard believes that the pendulum has swung rather too far in favor of the cold water treatment of typhoid, and that the antiseptic treatment should be more considered as a logical method. He uses it in the following form: Calomel, .5 grain; guaiacol carbonate, 2 grains; podophyllin, .05 grain, given in capsule every two hours for one or two days, according to the condition of the bowels. He continues this until he has secured four or five evacuations for

two successive days, then leaves out the calomel and adds .5 grain of menthol. If there is then any tendency to constipation, he uses small doses of salts or Hunyadi water in the morning, always endeavoring to secure at least two evacuations per day, depending on the temperature and tympanitis. If after four or five days the temperature remains high or rises, he again uses the calomel as above, for twenty-four hours, which invariably reduces the temperature and improves the condition. The guaiacol, menthol and podophyllin are continued throughout the disease. Occasional spongings or ablutions in cold water are used and dietetic and general hygienic precautions observed. He thinks that under this treatment patients can retain, digest and assimilate more nourishing food than with any other, and the average duration of the disease was in his cases only sixteen days. (See JOURNAL, May 6, p. 996.)

39.—See abstract in JOURNAL, April 1, p. 714.

40.—Laryngeal Paralysis.—MacCoy calls attention to the paralysis of the larynx that may often occur from typhoid infection, and reports three cases, in one of which prompt intubation undoubtedly saved the patient's life. The second was one in which tracheotomy had been performed, and the third, being too late in operation, was fatal. He believes that the present clinic status of these cases is similar to that of tubal pregnancy years ago, when the patients were considered fatally predestined to death by peritonitis. We should watch for this paralysis and act promptly.

41.—See abstract in JOURNAL, March 4, p. 487.

42.—Ibid.

44.—Amyloid Liver.—Musser reports a case of enlargement of the liver with suspicion of malignant disease. Death occurred from catarrhal pneumonia. The post-mortem examination showed the enlargement due to amyloid disease, which process also existed in the kidney and the spleen. There was also cirrhosis of the kidneys, which complicated the diagnosis. The lack of symptoms of amyloid disease excused the diagnosis.

48.—Diphtheria.—Gass reports his experience in the treatment of diphtheria with and without antitoxin. From January to October, 1895, he treated five cases of diphtheria with three deaths, all treated according to the recognized method before the discovery of antitoxin. Since December, 1895, he has treated nine cases with antitoxin, and all recovered; some of them were apparently more severe than the fatal ones that occurred before the use of this treatment. He has also been called in consultation in five cases similarly treated, with equally good results.

49.—Gall-Stone Surgery.—Hoegh's paper urges the importance of early operation before the concrements have passed into the ducts or produced destructive inflammations in other organs. To meet this condition physicians must learn to early diagnose gall stones, and the public must be educated to seek early operative relief. Surgeons must exclude malignant cases from their operating list, as the deaths in these cases will be credited to the operations rather than to the disease, and, lastly, operation should only be undertaken by surgeons who are specially skilled or have made special study of the subject.

51.—Cell Division in Carcinoma.—Ferris' paper is a very elaborate illustrated description of the biologic changes in the cells in carcinoma. The principal points of medical interest deduced are that the bipolar mitosis is more indicative of malignancy than the multipolar. The production of multipolar and asymmetric mitosis by chemic agents suggests that a deranged chemistry may be a factor in the etiology of cancer. Hypochromatic and asymmetric mitoses are found usually only in carcinoma. Their presence, therefore, is of considerable diagnostic value.

52.—Infective Otitis.—Wilson describes the forms and causes of infective otitis and the methods of its treatment. The paper must be referred to for details. In those cases where the infection has gone beyond the tympanic cavity and begins to involve the sinuses, the prognosis is much more favorable than formerly, with the new treatment of free opening, curetting and asepticizing.

64.—Climate for Consumptives.—Schapps reports the history of his own case and dwells on the importance of not dreading cold climates for consumptives. He thinks that to most patients the bracing air of winter in the Montana mountain regions compensates for the diminished amount of sunshine at that time of the year, and he says he is not the only physician who hopes to be forgiven for sending patients South. But other things beside climate must be considered. While high altitudes and dry air are beneficial, it must be remembered that cases are cured even under the reverse conditions. Overwork, anxiety, etc., have much to do with the fatality of consumption. Congenial surroundings are as important as other elements. While pulmonary disease can not be cured by good psychic conditions, it can not be cured under adverse ones. Sunshine and fresh air are possibly as beneficial because they tend directly to cheerfulness, as because they are destructive to the bacilli. Change of residence, besides bringing into play physical healing functions may also be of advantage by removing the patient from associations of care and work and distracting the mind by new and pleasant impressions. In most cases it is desirable for the patient to remove far from the location of infection and to especially avoid the neighborhood of large cities. Many of the abandoned army posts in the West would make grand sanitariums for patients suffering from consumption.

66.—Effects of Toxins.—Van Cott's paper first describes the biology of the cells and then shows the effects on them of various disturbing agents, which inhibit or pervert the process of karyokinesis. He illustrates this by various instances, the effects of antipyrin, sepsis, diphtheria toxins, etc. The effect of these toxins must be a nutritive disorder. The parenchymatous tissues are very largely supplied with blood-vessels and as soon as the toxins have been inoculated they are bound to be quickly reached. At the close of his paper he emphasizes the danger of coal-tar products as causing the degeneration of the parenchymatous elements. In the discussion following, Dr. Bartley pointed out that the toxins are probably not basic substances or ptomains, and may possibly be complex substances. In some cases they may be of a proteid nature, but not in others, and they may be elaborated in the body of the organism and escape into the culture media on their death. Their action in producing disease appears to be selective, especially on the cells themselves, causing disturbances of function, and if present in sufficient amount, their death by disintegration of the nuclear elements. These changes are produced by the toxins of these organisms and not by the organisms themselves.

67.—Varying Electric Resistance.—Hutchins calls attention to the subject previously treated by him of the varying resistance of the individual to the electric current under certain conditions. He shows that the text-books give very little advice on the measurement of the current, generally leaving the operator to find this out for himself. He shows by experiment that resistance varies, not only in individuals, but under different conditions in the same individual, and that this may be of more or less importance in the therapeutic application of electric currents.

68.—Rupture of Bladder.—Thorndike reports six cases of bladder rupture, with three deaths, and discusses the diagnosis and treatment of these cases. He believes that there are very few cases in which laparotomy is not indicated, these being only those in which the rupture is positively known to be extraperitoneal and where the extravasation is known to be limited to the prevesical space. Immediate laparotomy should be performed in all other cases and in cases where there is doubt.

69.—Alopecia Areata.—MacGowan reports eight cases of alopecia areata, all treated with trikresol applications and with excellent results, cure being produced in all. The application was preceded by a thorough cleansing of the patch with benzin; the pure remedy was applied to the scalp and well rubbed into the denuded patch and into the roots of the hair for half an inch surrounding the patch. This produces some pain, which usually passes away in a few minutes or half an hour. The skin turns pearly white almost instantly, the hair and sebaceous follicles seeming to gap. This whiteness is followed in a few hours by circumscribed hyperemia, occupying the same area. On the scalp there is very little transudation of serum. When applied to the face there may be more pronounced vesication. Within twenty-four hours a brown or brownish red superficial scale forms, which falls in from four to ten days and a new application is required. The skin is now more tender and the application should not be so thorough nor strong. When applied to the face, the trikresol is given by him in solution of 50 per cent. with alcohol. The average length of treatment is about two and one-half months.

71.—Albuminuria of Pregnancy.—Ott thinks that we have discovered nothing new as to the causal or pathologic relations, but we have advanced in treatment of this condition. The causes given are pre-existing disease of the kidneys, either latent or aggravated by pregnancy, disorders directly caused by pregnancy and the extra work it entails, and pressure on the kidneys or the ureters causing reflex vascular tension and irritation. The frequency is about 6 per cent. The albumin seldom appears before the third month and in some cases there are no objective symptoms and the albumin is only accident-

ally discovered. In some cases it seems to appear during or immediately subsequent to labor. He reports a case in which there was entire absence of dropsical signs, with predominance of nervous symptoms. As regards treatment of these cases, it is generally best to interfere and cause delivery whenever the symptoms seem to be threatening. The intermissions in this class of cases are delusive, and watchfulness should not be abated. Microscopic examination of the urine should be kept up and if hyaline casts are found after the albumin has disappeared, there is danger of a relapse.

79.—**Subconjunctival Injections.**—Smyth speaks in favor of the method of using subconjunctival injections in iritis, keratitis, etc. Its action is as a lymphagogue rather than as a specific result of the drug used, and in his later cases he has used a simple 2 per cent. salt solution with good effects and almost no pain. He gives two cases illustrating this method.

80.—**Hemiplegia.**—Helm describes a case in which there was paralysis of the left limb, with anesthesia of the right, which disappeared under treatment with ergot, strychnia and iodid of potash. He believes it was caused by a fall and pressure against the spinal cord at the level of the ninth dorsal vertebra, which could not have been from a dislocation, judging from the results.

81.—**Vaccination.**—Speidel describes a method he has used for vaccinating safely, antiseptically and without inconvenience. After rubbing in the virus, he sticks a thick bunion plaster over the spot so that the vaccination area fits into the hole. A strip of rubber adhesive plaster long enough to go around the arm is then taken and on the middle of the adhesive side is pressed a one-inch-square of cleansed rubber tissue, the dull side downward. The strip of adhesive plaster is then placed around the arm, the little square fitting over the hole in the bunion plaster. The strip of rubber tissue prevents the adhesive surface of the plaster from coming in contact with the vaccination spot. In this way the vaccination is protected from contamination, injury or friction of the clothing and generally proceeds undisturbed to the end. The patient is looked after and if any redness shows itself above or below the bunion plaster, the adhesive strip and plaster are removed and the inflamed surface cleansed with turpentin and then painted with ichthyol-collodion, beginning by painting the healthy skin beyond the inflamed region and gradually approaching the center. When done a gauze bandage is wrapped around the arm to prevent friction with clothing.

84.—**Yellow Fever.**—MacKowen believes he has discovered a reaction found in the urine of yellow fever patients and in no other disease. He describes it as follows: "Pour into a test tube four and a half cubic centimeters (or one fluid dram) of urine, add a cubic centimeter and a half (or a fluid scruple) of sulphuric acid, shake well, then, after cooling the mixture by putting the lower part of the tube in cool water, add a cubic centimeter and a half (or one fluid scruple) of chloroform to the mixture in the tube, shake thoroughly, then put the tube in a standing position and allow the chloroform to settle to the bottom. The chloroform becomes a sediment at the bottom of the tube and assumes, within twenty-four hours, an opaque, dirty, yellowish-white, or an opaque dirty yellowish-gray color. Above the chloroform rests a brownish liquid, and between liquid and chloroform sediment a pink or reddish streak forms. Sometimes the part of this underlying streak near the liquid is bluish and then near the chloroform is pink or reddish, but the blue turns gradually to pink or red after some days; usually this streak is only pink or reddish. By keeping this reaction in the test-tube for some days or weeks all these colors become more pronounced or darker. By a little practice with this reaction any one can see from the color of the sediment that yellow fever is present, or not, within an hour, and as the eye becomes more accustomed to it, a few minutes suffice for a diagnosis." The formation of this dirty, yellowish-white sediment is due to the large amount of urobilin in the urine of yellow fever, and it is rendered opaque and of a dirty hue by the presence of a small amount of bile and a larger amount of indican, which the chloroform absorbs as it is shaken up. When the chloroform has become a sediment, a reddish indican line gradually forms in its superior part as the red is deposited by settling from the superposed liquid. As the bile increases in the blood stream and urine, the bluish-green tinges the red more or less, and may even replace it.

85.—**Uterine Reflexes.**—Upshur reports three cases in which, with other symptoms, there were marked nervous disturbances, severe headache, glottis spasm, mental aberration and paralysis existing in one or another of the women, in which correction of uterine or ovarian disorders caused complete relief. He says these are only a few of many illustrating in various ways the reflex disturbances incident to uterine or ovarian disease, and they are reported to point out the lesson that in women a diagnosis of serious nerve lesion of central origin should never be made and no prognosis given until the uterus and its appendages have been carefully, intelligently and systematically examined.

86.—**Closing Abdominal Incision.**—McGuire, in choosing the method of closing the abdominal wound in laparotomies, says that when time is valuable and life in danger, he should use the through-and-through suture, and the tier suture "whenever the slightly longer operation will be compensated for by the more comfortable convalescence and the greater assurance of the future integrity of the abdominal wall."

92.—**Climate for Consumptives.**—Phelps discusses the various locations recommended for consumptives and concludes, notwithstanding certain disadvantages from low altitude, that Phœnix, Ariz., meets the largest number of requirements. Southern California is much less advantageous for this class of patients.

93.—**Hot Air in Joint Diseases.**—Gillette rather discredits the extreme claims that have been made as to the benefits derived from hot-air treatment in joint diseases. He finds that the theories of its action are unsatisfactory, and that mental impression in many cases has probably much to do with the beneficial results. Many men who have been using the treatment for two years or over in joint diseases, and have kept a careful record of their cases, now employ it to a very limited extent in special conditions. His own experience has been disappointing. In rheumatoid arthritis and chronic gout it has been unsatisfactory. His opinion is that it is of no benefit whatever in tubercular cases, though he will not make a positive statement to that effect. In gonorrheal joints without suppuration the heat has been beneficial in relaxing the rigid muscles, and possibly in softening and loosening the adhesions. When patients have worn a plaster cast for a long time, it seems of especial benefit in restoring the joint. He has produced perfect cures in cases of dry synovitis, and in acute or chronic sprains excellent results have been obtained, and also with fractures near the joints where the muscles and tendons are bound down by inflammatory adhesions. He has found it of benefit as supplementary treatment in inflammatory flatfoot. Taken altogether, he has come to the conclusion that hot air is at best only an adjuvant to other treatment, and that it is still impossible to cure the formerly so-called incurable joint diseases.

95.—**Phocomelus of Humerus.**—Clark calls attention to an asymmetry of the humerus as a degenerate stigma in epilepsy and reviews quite extensively the literature of the shortening of the bone. He reports a case in detail, with illustrations.

96.—**Inhibition.**—Meltzer's paper is a continued one and will be noted at more length when it is completed.

97.—**Intrauterine Vaporization.**—Brothers describes the technic of intrauterine vaporization, the apparatus, the after-treatment, sequelæ, indications and contraindications, and briefly reports twenty-one cases. He concludes that from experience thus far it is of value as a hemostatic in non-malignant post-climacteric hemorrhages and various other irregular hemorrhagic conditions; that it is a caustic which can be trusted to destroy the mucosa of the uterus even to the extent of obliterating its canal, and as a bactericide it may be used in gonorrheal and septic puerperal endometritis. Fenomenow has verified the sterility of the uterus after this operation. Pincus has also resorted to intrauterine vaporization to reduce the bulk of the subinvoluted uterus with success, and Fenomenow has reported good results in a case of chronic suppurating abdominal fistula.

98.—**Pedicle Twisting.**—Becker explains the twisted condition of the pedicle in ovarian and other tumors, sometimes found on operation, by the inertia of the mass in cases of sudden twisting or turning of the body. It is only a question of favorable conditions or otherwise. Tumors that are not attached by adhesions will be subject to this twisting action.

99.—**Complete Laceration of Urethra.**—Stern reports a case of complete laceration of the urethra following a fall on a fence, quickly recovered from by prompt external urethrotomy, and he emphasizes the importance of early recognition and operation in these cases.

100.—**The Coated Tongue.**—Weaver briefly dwells on the importance of the coated tongue as a germ carrier and producer and the effects of it as a systemic infection-breeder. He says it has been his custom when consulted in regard to a coated tongue or foul breath to advise the patient to procure a tongue scraper and diligently cleanse the tongue every morning as a toilet process, using after it a disinfectant mouth wash. Every surgeon, also, who has a coated tongue should bear in mind

that in sneezing, coughing or even speaking, infection may be carried. Every patient undergoing any operation about the mouth should have the tongue cleansed and disinfected and every fever patient should have the tongue systematically cleased to remove that much self-infection.

101.—Hysteria simulating Visceral Inflammation.—Robey reports three cases in which diagnosis was complicated and rendered difficult, two of which appeared to have been simple hysteria and in the third organic disease was mistaken for hysteric disorder. He thinks that these cases point out the importance of regarding each case as one of serious organic disease until the reverse is demonstrated and the necessity of early rectal and vaginal examination and consultation and laparotomy in doubtful cases.

102.—Poisoning during Chloroform Anesthesia.—Winslow reports a case in which an operation was performed by the light of three gas flames, with the result of producing serious irritation in the throat and chest of all present, and compelling free ventilation of the room and the continuing of the operation under ether. He explains the presumed chemic action and believes the toxic effect was due to the setting free of chlorin gas. This adds one more danger to chloroform anesthesia and offsets some of its advantages, especially in obstetric cases.

103.—Hernia Guarantee.—Edebohls discusses the operations for appendicitis and their dangers as producers of hernia, also the length of time of confinement after operation. He describes his own method of operation for purulent appendicitis at length, which can not be reproduced here. He concludes that the perfected operation for chronic appendicitis is sufficiently well elaborated to make ignorance on the part of the surgeon inexcusable, but that the technic of the operations for acute purulent appendicitis still is somewhat open to discussion. He believes his method will lead, if adopted, to results as satisfactory as those in chronic appendicitis. The value of the grid-iron incision of McBurney in acute appendicitis with pus is not sufficiently appreciated, nor is it sufficiently recognized that the duration of confinement after operation for chronic appendicitis need not exceed a week, and may be even less. The duration of confinement after operation for acute appendicitis with pus, excepting those cases where fecal fistulæ form, need rarely exceed two weeks at the outside. The author has found, since adopting his method described, the longest period in his practice to be fifteen days. Hernia, he claims, need no longer be dreaded in operations for appendicitis, and there is no longer any good reason why all patients suffering from this disorder should not have the benefit of the operation.

105. Gastric Ulcer.—Grad describes a method of operation for gastric ulceration, illustrated by diagram, in which he inserted a sort of pucker-string suture around the line of proposed incision, in the loops of which he inserted a wire frame which, during the operation, kept the incision wide open and prevented the contents of the stomach from sciling the surrounding tissues.

106.—Public School Inspection.—Reder calls attention to the necessity of inspection of public school children and the hygiene of public schools as a prevention of infection. He dwells on the necessity for cleanliness in every respect, the necessity for oversight, especially at certain periods of the year, as late in the fall and early in the spring, the isolation of infectious diseases, the importance of looking after diseases of the throat and lungs, etc.

109.—Surgery in Women.—Johnston dwells on the importance of thoroughness in operations on the female genital organs, recognizing the difficulties and objections to mutilating procedures. The question is influenced by various conditions: the age of the patient, the nature of the disease, the extent of the lesion and its complications, the patient's physical condition. While conservatism properly applied is wise and humane, it must accomplish the best results. It often entails prolonged effort, thus increasing the liability to shock, and extensive manipulations increasing the risk of infection, besides tissue injury and the possibility of a second operation. All these things should be weighed in the consideration of the problem of what is best, a thorough removal of the parts or an endeavor to save as much as possible of the diseased organ.

110.—Formaldehyde Gas Disinfectant.—Park describes the method of action in the use of formaldehyde gas as a disinfectant, and concludes that it is the best agent at present in use for surface disinfection of infected dwellings. For heavy goods it is inferior in penetrative powers to steam or dry hot air at 230 F., but for the disinfecting of fine wearing-apparel, furs, leather, upholstery, books, etc., which are injured by great heat, it is better adapted than any other disinfectant now known.

112.—Lithemia.—Loveland makes two distinct divisions of lithemia: 1. The plethoric type, occurring in patients of full habit, passing small quantities of concentrated urine, the blood showing a relative concentration as regards hemoglobin (95 to 120 per cent.), while the corpuscle count ranges from 5,500,000 to 7,000,000 or more; in this class of patients the assimilative organs are in good order to digest the usual amount of food materials and the ordinary variety, the lithemia resulting from overloading the system. 2. The asthenic type, under which he groups the chronic progressive articular (rheumatic) conditions as well as various nervous and systemic disorders; he considers the assimilative processes so feeble that the ordinary amount and variety of nourishment is not supplied to the body; blood shows a deficiency in hemoglobin (65 to 85 per cent.), while the corpuscular proportions are not worthy of note. A rigid dietary regimen may be laid out for the plethoric cases, while great care is necessary in prescribing for the asthenic types. Large quantities of water may be used by all cases, while alkalies are to be used in smaller quantities and over a longer period in asthenic than in the plethoric cases. Bathing, flushing, or a course at the hot springs is a line of treatment especially adapted to the first class of cases; the feeble patient may resort to frequent dry rubs.

113.—Malarial Hemoglobinuria.—Warden considers that the burden of proof that the administration of quinin is accountable for malarial hemoglobinuria rests with the demonstration that the drug given to a malarial patient hitherto uncinchonized is followed by hematuria, which disappears and returns with the withdrawal and continuance of the drug; such positive cases are rare. In treating malarial cases in which hematuria has developed, there is little or nothing to prove that the careful administration of quinin is harmful except in cases of pure quinin-hemoglobinuria, a rare condition. The exhibition of quinin should depend on the results of blood examination; as long as the parasites are present the administration of quinin should be continued, unless some dangerous idiosyncrasy be observed. With regard to the use of quinin in post-malarial hematuria, and in cases in which bloody urine occurs after remote attacks of malaria, there is nothing to indicate its use unless the parasites are formed.

114.—See abstract in JOURNAL, April 8, p 764.

116. Hysteric Muscular Paradox.—This is a term advanced by Aldrich to designate the phenomenon of hysteria which is characterized by paralysis or weakness of a muscle or a group of muscles for one purpose and not for another. This phenomenon of hysteria seems to contravene known laws of muscular action; thus it constitutes a paradox.

117.—Convenient Antisepsis.—Paul recommends that for the rapid preparation of the hands of the surgeon and assistants, acetanilid be combined with ordinary powdered castile soap in the proportion of fifteen parts acetanilid to one hundred of soap.

118.—Force in Colles' Fracture.—Roberts calls attention to the necessity of using a great deal of force to reduce and fully replace the lower fragment in this class of fractures, the fragment being driven by the impact of the hand against the ground when the patient falls and sustains the injury, the displacement being almost always accompanied by entanglement of the two fragments with each other, or true impaction of the upper fragment and the cancellated tissue of the lower fragment.

119.—Cystoscopy in the Male.—Witherspoon describes a new device of cystoscope for use in the male urethra, and illustrates the same. He claims as its advantages the slight cost, simple and uncomplicated illumination, the possibility of treatment as well as examination, the direct seeing of the field without modification by lens, reflector or fluid, and the facility it affords of catheterization of the ureters.

120.—Diphtheria.—Love holds that the origin of diphtheria is established beyond reasonable doubt, as the Klebs-Loeffler bacillus, and that antitoxin is demonstrated as a remedy almost as valuable and definite for this disease as vaccination has been for smallpox. He advises, however, caution in the application of the remedy and the recording of cases.

122.—Tonsils as a Menace.—Winslow discusses the question of infection through the tonsils, referring specially to diphtheria as a typic example. Scarlatina is believed also to infect the system in this way. Articular rheumatism was one of the first diseases recognized as a systemic infection thus introduced, Trousseau, in 1866, first pointing out this relation. Pneumonia is a less frequent sequel to tonsil disease, but tuberculosis is one of the most common chronic infections thus entering the system. Heretofore, we have simply directed treatment toward conditions resulting from hypertrophy of these organs, but now, in view of these facts, Winslow thinks that we should modify our views and practice. The correct treatment, in his opinion, is by prophylactic destruction of the dis-

eased tissues and the tonsils should be replaced by scar tissue. The ideal operation is by electrocautery as advocated by Pyrchon.

FOREIGN.

Lancet, April 29.

Parasite of Cancer. WILLIAM RUSSELL.—The author discusses the investigations of the Italian biologists, Sanfelice, Boindi, Carboni, Marino-Ruco, Roncali and others, and holds that the evidence is incontestably in favor of the blastomycetes as the pathogenic organism in cancer.

On a Case of Cerebral Abscess Illustrating Certain Forms of Aphasia. ALEXANDER MILES AND THEODORE SHENNAN.—The writers report a case of a young man who had an abscess, following otitis, involving the whole white matter of the temporal lobe with the exception of the auditory center. The aphasic symptoms were paraphasia, of which the patient was generally conscious, and amnesia, chiefly of nouns and names. The case seems to indicate that the area which controls the naming of things is not necessarily the same as the auditory center, but may possibly be in another part of the cortex. In this case admitting the existence of such a center, the conducting fibers from Broca's convolution would be interrupted and the results would be such as were found in this case.

Incubation Period of Scarlet Fever, Varicella, Parotitis and Rotheln. CLEMENT DUKES.—The author publishes tables showing the incubation period of these four diseases in a number of cases. It varied from two to six days in scarlet fever and from nine to nineteen in varicella, and averaged about nineteen in mumps. In measles the average appeared to be less than two weeks and a little over that in rubella. He also gives a table to show the effectiveness of the early isolation of the first case in preventing epidemics of these disorders and makes it manifest that it is least efficient in rubella. This disease, therefore, may be considered the most infectious of any, but, fortunately, it is a trivial disorder.

Bulletin de l'Academie de Medecine (Paris), April 18.

Diffuse Hypertrophy of Bones of Face and Skull. LE DENTU.—This affection Le Dentu states has no connection with Paget's osteitis or acromegalia. It is usually bilateral but may be limited to one-half the face or a single group of bones. Its evolution is distinguished by acute and subacute phases resulting in the exaggerated development of certain portions of the bones already abnormally developed as a whole. The lesions develop with more or less slowness, usually taking years, but cases have been known in which the hypertrophy occurred rapidly and terminated fatally in a few months. Far from being composed exclusively of bone substance, the tissues may form a combination in variable proportions of bony, fibrous embryoplastic elements, difficult sometimes to differentiate from circumscribed and pediculated bone tumors on the face which occasionally occur symmetrically, such as an osteoma, osteofibroma, osteofibrosarcoma or osteochondrosarcoma. The prognosis is relatively benign, but the affection may shorten life by preventing mastication, swallowing and breathing, and by cerebral phenomena, from compression of the brain or irritation of the meninges, such as he observed in three of his four personal cases. Partial extirpation of the new-formed bony masses proved successful in the other case and encourages further attempts to arrest the development of hypertrophy of the face or leontiasis ossea, in the early stages, by abrasion of the projecting portions and deep igneocauterization.

Journal de Medecine de Paris, April 23.

Cystinuria. H. MOREIGNE.—A typic case of cystinuria was carefully studied for a number of months with the following conclusions: The subject was a young woman who had had attacks of renal colic at times for twelve years, some extremely painful, terminated by the expulsion of small, yellowish, slightly translucid and friable calculi composed of cystin. The urinary organs are in good condition; the urine greenish yellow, with crystals of cystin in the sediment. The amount of uric acid is considerably more than normal and does not vary with the amount of cystin. Cystinuria is evidently due to a diminished activity in the organic interchanges, a slower nutrition; exaggeration of the anaërobic life of the cells with partial arrest of the oxidation, indicated by the diminished amount of nitrogen, of oxidized sulphur and of urea in proportion to the total of organic substances excreted, with an increased amount of incompletely oxidized sulphur in proportion to the total amount of sulphur which does not vary from normal; increased amounts of leucin and tyrosin, with putrescin and cadaverin, and a larger proportion of carbon to the nitrogen in the urea. He mentions facts which disprove the theory that the cystin is formed in the intestines and demonstrates that it is produced throughout the organism, although he is inclined to regard the liver as the organ principally involved. The treatment is the same as for other affections due to a similar diathesis, stimulating by every means the intraorganic oxidations. (See JOURNAL, xxvii, p. 95.)

Presse Medicale (Paris), April 22.

Therapeutic Application of Vanadium and its Compounds. LARAN, LYONNET, MARTZ AND MARTIN. All these writers announce more than satisfactory results from the administration of vanadic acid or sodium metavanadate in tuberculosis, chlorosis, anemia, neurosis and all affections depending on diminished nutrition and oxidations, due to its remarkable property of absorbing and yielding oxygen, which has long been utilized in certain industries. They consider it probable that a pervanadic acid is formed, which is extremely oxidizing and unstable, incessantly destroyed and incessantly renewed, taking up oxygen where it is in a weak combination and yielding it to other substances which absorb it with difficulty. They even assert that the vanadium salts may prove the specific remedy for retarded nutrition and cachectic conditions. Laran establishes the fatal dose of vanadic acid for dogs as eight miligrams per kilogram, the first symptoms of intoxication appearing with 1.5 mg. Ingested *per os* the fatal dose is a little larger. He uses a solution of $^1/_4$ grain per thousand for local applications, and reports one case in detail in which an obstinate, recurring tuberculous osteoarthritis was cured in two weeks. He administers to patients $^1/_{13}$ grain (0.45 mg.) vanadic acid in two doses during the day, and has never noted a trace of disturbance of any kind in the course of months, although he emphasizes the importance of an absolutely pure article. The other writers report appetite, strength and weight rapidly improved in sixty patients taking $^1/_{16}$ to $^1/_{13}$ grain sodium metavanadate in twenty-four hours before meals, three or four days each week. No disturbances of any kind were noted. The fatal dose for dogs is 75 milligrams per kilogram.

Deutsche Medicinische Wochenschrift (Berlin), April 27.

Modern Blood Preparations. W. ROSENSTEIN.—Spectroscopic analysis of a number of meat-juice and blood preparations on the market, in Lewin's pharmacologic laboratory, directly contradicts the advertising statements, showing that none of them consists of perfectly pure blood. The writer concludes his detailed report by adding that even if they fulfilled all the requirements, the idea of administering them to aid in the production of blood is based on erroneous premises and is a distinct retrogression. Voit and Cloetta long ago established that the iron in blood is not absorbed in the alimentary canal, while we know that anorganic preparations of iron are assimilated and benefit chlorotic subjects.

A Rare Case of Pylorus Stenosis. C. FLEISCHAUER.—The stenosis and obstruction were due to a gall-stone the size of a pigeon's egg which had found its way into the stomach through a perforation into the gall-bladder, which with the duodenum was adherent to the stomach in the pyloric region. A fistula remained after resection of the pylorus and cholecystectomy, which gradually healed, with absolute acholia for three weeks; complete recovery.

A Rare Case of Hernia Interna. S. WATJOFF.—A depression is often noted under the sigmoid flexure in the mesentery, and in the case reported this depression formed a pocket in which the intestine became incarcerated, causing strangulation and death. A number of whole, unripe cherries were found in the hernia and its neighborhood. A prompt laparotomy would have saved the patient, and the hernia might possibly have been reduced by introducing a long irrigating tube per anum.

Centralblatt f. Chirurgie (Liepsic), April 29.

Ligneous Phlegmon. L. KRAUSE.—The writer describes a couple of cases of the slow inflammation of the connective tissue by feebly virulent micro-organisms called ligneous phlegmon, on account of its board-like structure. One was in the neck of a healthy young woman, the other in the abdomen, extending from the navel to the symphysis. The first produced suffocation from compression of the larynx, the other frequent desires to urinate from pressure on the bladder. Both retroceded after evacuation of a deep abscess that formed.

Muenchener Medicinsche Wochenschrift, April 25.

Further Experience in Tendon Implantation. O. VULPIUS. Eighty operations, in which part of the tendon of an active muscle was implanted in a cleft in the tendon of a paralyzed muscle, with or without shortening by taking up a fold, have produced such highly satisfactory results that Vulpius recommends the procedure with enthusiasm, not only for cases of traumatic rigidity, Little's disease, spastic paralysis and partial and total spinal paralysis in children, but also for children's cerebral paralysis, apoplectic hemiplegia, dystrophia muscularis, progressive and congenital club- and flatfoot, talipes equinus and loose joints. The foot is best adapted to this operation, but he has also secured surprising results with the thigh

and hand. The operation accomplishes everything short of miracles, enabling children helplessly deformed to walk and use their members with ease. The tendons are stretched, interlaced and sutured in an overcorrected position. If the bones require operating he postpones the tendon operation until this is done. A plaster cast is applied for six to seven weeks; the subject remains in bed the first four, with massage, electricity and hydrotherapy later if possible. He always uses silk; in four cases a thread suppurated out several months later, and in one case neuralgic pains persisted for several months in the operated region. With these exceptions the recovery has been smooth and the operation invariably more or less successful. He casually adds: "It may be a mere coincidence, but the fact is none the less gratifying, that during the last eighteen months, since I have been operating in thread gloves and a hood, which leaves only the eyes exposed, there has not been a trace of infection in any of my 250 aseptic operations."

Wiener Klinische Runschau, April 13.

Diagnostic Significance of Ulcerations of the Epiglottis in Abdominal Typhus. G. KOBLER.—Ulcerations with loosened edges lengthwise of the epiglottis, occurring in an acute feverish disease, differentiate typhus with almost infallible certainty, according to Kobler's experience. They also determine the prognosis, as the infiltration persists and subsides with the acute stage of the disease. He warns against confounding traces of healed ulcerations left from an old typhus with syphilitic lesions.

Origin of Choked Disc and a New Explanation. J. DEYL.—The writer concludes the report of much research from the six previous numbers, with the statement that choked disc is the result of compression of the vena centralis retinæ at its emerging point or before, by the outer sheath of the optic nerve, which is forced apart from the nerve fibers in the pial sheath by pressure from hydrops intervaginalis or an extravasation of blood. The dural sheath thus expanded into an ampulla, bends and compresses the vena centralis until the circulation is partially arrested. The accumulation of fluid in the anterior portion of the space between the sheaths is caused by increased intracranial pressure, or by some occlusion of the optic foramen. This occlusion may also occur with a tumor of the hypophysis or in acromegalia in certain anatomic conditions, in which case the choking of the disc is due to stagnation of lymph and consequent compression of the vein. As long as the ampulla shaped dilation of the dural sheath does not reach to the emerging point of the vein, "choked disc" does not occur, even with pronounced hydrops. And after the dilation has subsided, from subsidence of the fluid after trephining or healing of the intracranial affection, the expanded sheath collapses, the pressure is removed, the circulation re-established in the vein and the choked disc condition is ended, but is liable to recur with a renewal of the circumstances. Tuberculous, syphilitic and other lesions may also compress the vein at its emergence and cause the choking. The vein is not compressed in its farther course, but rather dilated, which refutes the theory of primary edema. He calls attention, in conclusion, to the new sign, the impossibility to artificially control the pulsation of the papillary arteries, which in many cases will differentiate a cerebral tumor from a renal affection as the cause of choked disc.

Gazetta degli Ospedale (Milan), April 2, 20 and 23.

Cure of Tetanus with Injections of Brain Substance. MORI and SALVOLINI.—A severe case of traumatic tetanus in a farmer of 47 years was treated with subcutaneous injections in the left hypochondriac region, of 10 c.c. of an emulsion of brain substance from a cow, 10 grams in 15 grams of salt solution. The symptoms were attenuated by the fourth injection. The sixth arrested them completely for two days, when they recurred, but yielded again to another; eight injections in all.

Infective Character of Rachitis. M. BELLOTTI.—Although the specific germ of rhachitis has not yet been discovered, Bellotti urges that the disease be included among the important infective-contagious diseases of childhood, with disinfection or destruction of the articles belonging to a rachitic child.

La Cronica Medica (Lima, Peru), March 31.

Inoculability of Peruvian Verruga. M. O. TAMYO.—The identity of Peruvian verruga and the acute disease known as Oroya fever was practically proven by Carrion's experiment on himself (see JOURNAL, xxxi, p. 1543). He inoculated himself with blood from a patient with verruga and died with typic Oroya fever. The case is fully established by the experimental research now reported in which a dog was inoculated with blood from a typic case of Oroya fever, with no manifestations of verruga, and in twenty days presented the clinic picture of "Peruvian verruga" in all its details as described by Odriozola in his recent comprehensive work on the subject.

Societies.

COMING MEETINGS.

American Association of Genito-Urinary Surgeons, Niagara Falls, N. Y., May 25.
American Dermatological Association, New York City, June 6.
American Laryngological Association, Chicago, May 22-24.
American Medico-Psychological Association, New York City, May 23.
Association of American Physicians, Washington, D. C., May 24.
Connecticut Medical Society, Hartford, May 24.
Indiana State Medical Society, Indianapolis, June 1.
Indian Territory Medical Association, So. McAlester, June 6.
Maine Medical Association, Bangor, June 7.
Montana, Medical Association of, Butte, May 24.
New Hampshire Medical Society, Concord, May 25-26.
North Carolina, Medical Society of State of, Asheville, May 30.
North Dakota State Medical Society, Fargo, May 24-25.
Rhode Island Medical Society, Providence, June 1.
West Tennessee Medical and Surgical Association, Jackson, Tenn., May 25 and 26.

Orleans Parish Medical Society.—In the report of this society (see JOURNAL, April 29, p. 939, column 1, line 10 and following) read: "The tumor, which weighed 15 oz.," instead of "pounds."

Hancock County Medical Society.—At the recent meeting of this society, held at Carthage, Ill., the election of officers resulted in: president, Wm. Booz; vice president, C. L. Ferris; secretary, R. L. Casburn; treasurer, J. H. Callahan.

Lancaster Medical Society.—At a recent meeting of this society held at Lancaster, Pa., officers were elected as follows: president, I. M. Lightner of Ephrata; vice-presidents, T. B. Appel of Lancaster, and H. W. C. Showalter of New Orleans.

Marion County Medical Society.—At the recent meeting of this society, at Marion, Ohio, the main discussion was on "Christian Science," and a resolution was passed condemning this method of healing. The next meeting will be held the first Tuesday in June.

Galva District Medical Society.—The annual meeting of this society was held at Galva, Ill., early in the month. Officers were elected as follows: president, W. A. Grove of Galva; vice president, M. T. Ward of Toulon; secretary and treasurer, C. W. Hall of Kewanee.

Oregon State Medical Society.—The twenty-sixth annual meeting of this society is announced for Portland, Ore., June 13 and 14. Among others, the following appear on the program: A. C. Bernays, St. Louis; Beverly MacMonagle, San Francisco; and R. Harvey Reed, Wyoming.

Camden District Medical Society.—At the annual meeting of this society, held in Camden, N. J., May 10, the following officers were elected for the ensuing year: president, W. S. Jones; vice-president, J. V. Leavitt; secretary, Paul M. McCray; treasurer, Joseph L. Nicholson; historian, Harry Sherk.

Washington County Medical Association.—The following officers were elected at the meeting of this association, at Washington, Pa., May 9: president, L. C. Botkin of Burgettstown; vice-president, H. L. Snodgrass of Buffalo; secretary, J. C. McKean of Washington; treasurer, W. R. Thompson of Washington.

Cook County Hospital Alumni Association.—There will be a meeting at the Union Hotel and Restaurant, Chicago, Tuesday, May 23, at 6 P.M., of the Cook County Hospital Alumni Association. Dr. Henry M. Lyman will present a paper on "The Building and Establishment of the Cook County Hospital." E. R. LECOUNT, M.D., Secretary.

Essex North District Medical Society.—This society held its annual conference at Lawrence, Mass., early in the month. The election of officers for the ensuing year resulted as follows: president, J. J. Healy of Newburyport; vice-president, B. F. Flanders of Lawrence; secretary and treasurer, M. D. Clark of Haverhill; corresponding secretary, J. A. Fitzhugh of Amesbury.

Southern California Medical Society.—This society held its twenty-third semi-annual session at San Diego recently. The newly-elected officers are: president, H. Bert Ellis of Los Angeles; vice-presidents, F. R. Burnham of San Diego, and F. C.

E. Mattison of Pasadena; secretary and treasurer, F. D. Bullard of Los Angeles. The society will hold its next meeting at Pasadena.

Arkansas Medical Society.—The twenty-fourth annual session of this society was recently held at Little Rock. In his address, the president discussed medical legislation in the State, and also national quarantine, and urged the passing by the State of a compulsory vaccination law, at least to the extent of making successful vaccination a prerequisite to entering the public schools. He also advised the establishment of a State laboratory in connection with the State university.

Nebraska State Medical Society.—This society held its annual meeting at Lincoln, May 9-11. The following officers were elected: president, Robert McConaughy, York; first vice-president, H. M. McClanahan, Omaha; second vice president, J. B. Hungate, Weeping Water; secretary, A. D. Wilkinson, Lincoln; corresponding secretary and librarian, H. B. Lowry, Lincoln; treasurer, J. L. Greene, University Place. The next meeting will be held in Omaha.

Pennsylvania State Board of Health.—The forty-second meeting of this board was held in Harrisburg, Pa., May 11. The session was devoted for the most part to the discussion of various epidemic diseases now prevailing in this State, such as smallpox, diphtheria, scarlet and typhoid fever. Dr. John Fulton was elected president pro tem. The question of appointment of delegates to the twenty-seventh annual meeting of the American Public Health Association at Minneapolis, and the fourteenth annual meeting of Conference of State Provisional Boards of Health of North America at Richmond, Va., was left to the discretion of the secretary, Dr. Benjamin Lee of Philadelphia.

Seventh International Congress Against Abuse of Alcohol.—The following medical men were elected officers at the session held in Paris recently: presidents, Drs. Rossel and Lagrain; vice-presidents, Drs. Bergron, Brouardell and Laborde, of France, T. D. Crothers of America, Dr. Bare of Germany, Dr. Raffalavich of Russia, Dr. Forel of Switzerland, Dr. Thiron of Roumania, and Dr. Ridge of England. The permanent secretary is Dr. Bouissier of the University of France. Most of these medical men are teachers and specialists, and with other officers, including a catholic cardinal, several leading clergymen, and public officials, comprise a very distinguished body of men who are deeply in earnest in the discussion of this great topic.

Third International Congress for Gynecology and Obstetrics.—This congress will meet at Amsterdam, Aug. 8-12, 1899, under the patronage of the Minister of the Interior. The leading questions for discussion will be: surgical treatment of fibromyoma; relative value of antisepsis and improved technic for the actual results in gynecologic surgery; influence of posture on form and dimensions of pelvis; indication for Cesarian section compared to that for symphyseotomy, craniotomy and premature induction of labor. M. M. Doyen, Howard Kelly and Schauta will treat the first question; M. M. Bumm, Richelot and Lawson Tait, the second; M. M. Bonnaire, Pinzani and Walcher, the third, and M. M. Leopold, Pinard, Pestalozza and Fancourt Barnes the fourth. Address all communications to J. D. Emmett, M.D., Secretary for America, 91 Madison Ave., New York City.

Medical Association of Greater New York.—At a meeting of this association, held May 10, the following officers were elected, to serve until the annual election in January, 1900: vice-president, John D. Rushmore, Borough of Brooklyn; recording secretary, P. Brynberg Porter, Borough of Manhattan; corresponding and statistic secretary, Frank C. Raynor, Brooklyn; treasurer, Augustus D. Ruggles, Manhattan. According to the by-laws the section of the association in each borough is to have its own chairman, elected by the members residing in the borough, and Dr. J. Blake White was chosen chairman for Manhattan. It having been announced that Dr. Austin Flint, one of the incorporators, was seriously ill with pneumonia (see JOURNAL, May 13, p. 1069), the temporary chairman, Dr. S. B. W. McLeod, was authorized to send to Dr. Flint an expression of the sincere sympathy of the association and its heartfelt wish for his speedy recovery.

French Congress of Alienists and Neurologists.—Anglade delivered the first address at the tenth congress, which convened at Marseilles in April. His subject was "Secondary Systematic Delirium," which he classified as consecutive to mania, melancholia, double insanity, neurosis and intoxication, each with characteristic manifestations. Taty's address was on the "Condemned Unrecognized Insane"; a plea for increased facilities for instruction in mental diseases not only for physicians but for law students, that they may recognize indications of insanity in persons under arrest, and other measures tending to prevent the condemnation of insane persons. Grasset called attention to the necessity of taking into consideration the distribution of a tremor as well as its rapidity, suppression by voluntary movements, etc., citing an interesting case of insular sclerosis in which, with other symptoms, there was pronounced tremor of the fingers and hand while the arm was exempt. Unable to sew or write, on account of the tremor, if the fingers were immobilized on a pencil, the subject could draw a perfectly straight line, using only the arm.

American Climatological Association.—The sixteenth annual meeting of this association was held in New York City, May 9-11. Following the meeting, the members, with their wives, enjoyed a complimentary excursion to the Loomis Sanitarium for Consumptives, near Liberty, where luncheon was served and some informal addresses made. Among those who spoke were Dr. Henry P. Loomis, the son of the late Dr. Alfred L. Loomis, after whom the sanitarium is named, who gave a brief history of the institution, and Dr. J. E. Stubbert, the superintendent, who gave some details of the work being accomplished. A few of the statistics reported by the latter are as follows: Cures, 16 per cent.; arrestments, 9 per cent.; improved sufficiently to return to work, 45 per cent.; average gain in weight per week, two pounds. The following were elected officers: president, A. Jacobi, New York; vice presidents, R. H. Babcock, Chicago, and J. W. Brannan, New York; secretary and treasurer, Guy Hinsdale, Philadelphia. The council is composed of the following members: S. E. Solly, Colorado Springs; James B. Walker, Philadelphia; E. Fletcher Ingals, Chicago; E. O. Otis, Boston; Beverly Robinson, New York.

Michigan State Medical Society.—The thirty-fourth annual meeting of this society has just been held in Kalamazoo. The Chandler medical bill, now before the legislature of that State, came in for a large amount of discussion, and the society passed a resolution urging its passage. Dr. David Inglis of Detroit spoke on the AMERICAN MEDICAL ASSOCIATION, and said in part: "I often hear the 'Code of Ethics of the AMERICAN MEDICAL ASSOCIATION' spoken of slightingly. But though it does not number among its members a great percentage of the medical men of the country, it is the saving fragment which shall save the whole people. Though these ethics are not practical, they are essentially for the truth and the right, and the time will come when we will look back and thank God for them. They are of infinite service in keeping before us that high standard while we are passing through this trying epoch." The election of officers for the ensuing year resulted as follows: president, A. B. Alvord of Battle Creek; secretary, C. H. Johnson of Grand Rapids; treasurer, J. W. Hooker of Grand Rapids; vice-presidents, B. B. Harrison of Sault Ste. Marie, H. W. Longyear of Detroit, and B. B. Bradley of Eaton Rapids. Next year the meeting of this society will be held at Mackinac Island.

Kansas State Medical Society.

Thirty-third Annual Meeting, held in Topeka, May 3–5, 1899.

RELATIONSHIP BETWEEN EYE AND NERVOUS SYSTEM.

Dr. F. C. HOTZ of Chicago, by invitation, addressed the society on this subject, his address appearing in full in this issue of the JOURNAL.

DIAGNOSIS AND TREATMENT OF NEURASTHENIA.

Dr. J. PUNTON of Kansas City, in his paper on this subject, spoke of the symptomatology being so extensive as to cause some difficulty in diagnosis. It is a neurotic functional affection, and in this the nervous system suffers as a whole. No two neurasthenic patients are exactly alike. The disease may be divided into two classes—complicated and non-complicated. He says there is a distinct difference between it and hysteria. Anesthesia is never a true symptom, but may be present as a complication. Rest is the measure of leading importance in the treatment. It is an absolute necessity, if the patient is profoundly exhausted by slight exertion. Isolation from home is sometimes necessary, and in some, suggestion is a powerful agent. Hand in hand with these measures should be the application of artificial exercise, such as massage, etc. Drugs must be used with the other measures. Coal-tar preparations are indicated for the pain.

Dr. B. D. EASTMAN of Topeka pointed out that neurasthenia is one of the most troublesome and difficult of nervous diseases to treat, and that isolation and removal from home is one of the most important measures.

Dr. M. P. SEXTON of Kansas City said that two or three things were of vital importance in the treatment—one that the patient should be removed from home and all unfavorable environments, and should be in the home of a good practitioner when sent away, so as to have proper attention. He considers this more important than suggestion. Medicines alone are of little avail. The patient must be persuaded to confidently expect a favorable recovery.

A committee of five selected six members whose names were to be sent to Governor Stanley, at his request. He also requested six names from the eclectic society and six from the homeopathic society, and from these eighteen he will select members of the State board of health.

HYSTERECTOMY.

Dr. D. N. BASHAM of Neal, in his paper on this subject, said that sometimes it was difficult to make a differential diagnosis between those cases which might possibly be benefited by more conservative measures and those which required the more radical treatment, hysterectomy. He stated that the extraperitoneal method of treating the stump was the method first used. He believes that the suprapubic operation is better developed in this country than elsewhere.

Dr. S. E. SHELDON of Topeka said that if the uterus was healthy, it should not always be removed when it was necessary to remove some of the appendages. He uses the clamps most frequently, but sometimes ligatures.

TREATMENT OF INEBRIETY AND DRUG ADDICTIONS.

Dr. M. P. SEXTON of Kansas City read this paper, and said that many could be permanently cured. Such cases should be placed under strict surveillance and every therapeutic measure, pharmaceutic as well as suggestive, should be used. There is no specific for these habits. It is the moral fiber that makes the man, and we can not cure that weakened moral fiber by the injection of different materials into the body.

FOREIGN BODIES IN THE AIR-PASSAGES.

Dr. L. REYNOLDS of Horton presented a paper on this subject. Some of the immediate symptoms are cough, spasm of the larynx, and pain. Organic substances are liable to undergo change. He reported several interesting cases. Treatment should be immediate removal. Tracheotomy is most frequently resorted to. Auscultation frequently affords a very important means of locating the foreign body. Anesthetics should not be used when the stomach is full, as the contents may enter the larynx when vomiting occurs.

Dr. J. D. MCCLINTOCK of Topeka reported a case where he removed, by tracheotomy, a three-quarter-inch screw and three grains of corn from the larynx of a child who was brought to him as dead.

INJURIES OF THE HEAD.

Dr. C. F. LESLIE of Clyde, in his paper on this subject, emphasized the proper treatment of such injuries. Indirect fractures of the face are more frequent than direct fractures. Bleeding from the ear in quantities and for some time usually indicates fractures of the face. The prognosis of fractures of the face is always grave. In fractures of the vertex, if there are brain symptoms, always operate. He reported several cases.

Dr. JACKSON said that the extensive cranial operations for epilepsy had demonstrated the fact that the cure of such cases must be effected at the time of the injury, by proper and careful treatment. Every case of depressed fracture of the skull should be operated on immediately.

DRY UNIFORM HEAT BY ELECTRICITY AS A THERAPEUTIC AGENT IN OPHTHALMOLOGY.

Dr. F. B. TIFFANY of Kansas City read this paper, and emphasized the fact that with electricity one can apply heat which is always uniform, something that is impossible to do with hot water. It is very beneficial after the removal of a cataract.

Dr. J. E. MINNEY of Topeka pointed out that heat has a place, but a very limited one except in hospitals. Long-continued high heat is injurious by producing a relaxing effect.

RECTAL ALIMENTATION.

Dr. IDA C. BARNES of Topeka read a paper on this subject, and pointed out that much of the irritability of the alimentary tract is due to improper food. Milk, as well as other foods, should be predigested for enemata. She believes in beginning the enemata early, so as to keep up the strength, and not first wait several days.

Dr. W. S. GOTTHEIL of New York City showed that the absorptive power of the rectum has been overestimated.

NEPHROLITHIASIS.

Dr. A. H. CORDIER of Kansas City read this paper. He has much faith in the X-ray locating some stones, especially large ones, in the kidney. All cases do not present the typic symptoms and some present only a very vague, uneasy sensation in the region of the kidney. The two most frequent symptoms are pain and hematuria. Presence of stones should be looked on as a source of danger to the life of the patient.

EPIDEMIC CEREBROSPINAL MENINGITIS.

Dr. J. W. PORTER of Midway reported ten interesting cases observed in a recent epidemic, and emphasized the contagious character of the disease. Among other proofs he spoke of an affected mother nursing a healthy child, against his directions, and the child contracted the same disease in a few days. The age of greatest susceptibility is between three months and five years.

Dr. J. W. MAY of Kansas City, Kan., said that almost all severe cases that recover have some bad after-effects.

Dr. SCHENCK of Topeka said that a great many epidemics could be stopped at once if proper sanitary measures were practiced from the beginning.

Dr. WARNER of Topeka reported treating a case with antistreptococcic serum with favorable results.

Dr. A. W. CARSON of Dover asked about the use of 1 c.c. bichlorid of mercury injected daily in the region of the spinal cord, as recommended by a German physician. No one present had resorted to this.

Dr. M. P. SEXTON of Kansas City said that suppression of the urine was a prominent symptom of most of his cases.

Dr. J. W. PORTER thought it would be well to prohibit public funerals.

TINEA SYCOSIS.

Dr. R. E. MCVEY of Topeka showed an interesting case of this disease. The young man had treated a calf afflicted with ringworm for several weeks, and by contact of soiled hands with his face he became infected. He treated with bichlorid of mercury solution.

Dr. P. D. HUGHES of Kansas City asked why the soft tumors on the face could not be incised and treated antiseptically, and Dr. McVey stated that they would disappear without that, and that incising would leave an unnecessary scar.

UTERINE FIBROMATA.

Dr. M. B. WARD of Kansas City read this paper, and said that they frequently develop with other derangements that contraindicate an operation. Most fibroids of considerable size should be removed. Unless pressure symptoms or impaired health result from the tumor, immediate operation is unnecessary. An opinion of the influence of the menopause on uterine tumors should be guarded.

OBSTETRIC CASE WITH STRANGE CONDITIONS.

Dr. A. W. CARSON of Dover reported a case of a child delivered at the seventh month. The cord had been in a deep groove in the neck, so he could not feel it when the head was delivered, and on delivery he found the cord torn off about an inch from the placenta. The head was so congested as to pit on pressure and the whole body was in a condition of anasarca.

IRITIS.

Dr. J. E. MINNEY of Topeka read this paper. He considers

this one of the most fatal diseases to sight, when allowed to run its course, and one of the most amenable to treatment when properly treated from the beginning. One attack predisposes to another, especially if not treated early. Syphilis and trauma are the most frequent causes. If a case presents itself with no history of injury, then suspect syphilis. The prognosis is good if seen early, but bad when adhesions have formed which can not be broken up. The disease lasts from a few days to many weeks. Atropin will frequently clear up the diagnosis. Eye pads, which retain the secretion, and heat, should not be used. Dark glasses are much better. Cold applications are beneficial in traumatic iritis for the first twenty-four to thirty-six hours, then heat should be used.

Dr. J. W. MAY of Kansas City, Kan., emphasized the necessity of early diagnosis and early treatment, and that constitutional treatment is of the greatest importance, especially when the disease is caused by syphilis and malaria.

The following officers were elected: President, Charles Gardiner, Emporia; first vice-president, R. J. Morton, Green; second vice-president, C. A. Milton, Dodge City; recording secretary, W. E. McVey, Topeka; corresponding secretary, J. M. Maus, Kansas City, Kan.; treasurer, L. H. Munn, Topeka; librarian, S. G. Stewart, Topeka.

Chicago Medical Society.

Regular Meeting, April 26, 1899.

THE NEW MEDICAL PRACTICE ACT

to go into effect July 1, 1899, was the subject for general discussion.

Dr. ARTHUR D. BEVAN—There can be no question that medicine can to-day claim the title of a science. There can be but one science of medicine, but unfortunately this is not generally recognized even by the profession, and certainly not by the public. The time will come, however, when the public is educated to this standard, and when this time does come, it will carry with it medical legislation throughout this country, possibly throughout the world, which will demand a high grade of qualifications from men who practice medicine. It has been the aim of the Chicago Medical Society and of the Illinois State Medical Society to demand of the legislature a bill which requires that before a man can practice medicine in the State of Illinois he shall show credentials that he has studied medicine for four years, entitling him to appear before the examining board for an examination, and if he passes the examination satisfactorily, he should be entitled to practice medicine in this State. During the last meeting of the legislature an effort was made to approach this ideal, and the effort has resulted in a necessary compromise.

D. J. W. PETTIT of Ottawa—If there is anything that the medical man knows less about than medical legislation, I fail to discover it. The fact is, the average medical man starts where this committee did, with very many gross misconceptions of what constitutes proper legislation, what we could get which would be constitutional, and what we could get under existing conditions. Now, we can only get at the progress that has been made by contrasting it with things in the past. I wish to call your attention to the fact, that those who live in this State and practiced medicine twenty years ago or more, when Dr. Rauch tried to get the first medical practice act passed, and the first one in the Union, know it was a difficult matter at that time to get even a diploma recognized as a standard for practicing medicine without any question as to where it came from. The diploma became debased under the law. Then another step was taken, which was to separate the license to practice from the degree, and three years ago, under instructions from the Illinois State Medical Society, your committee started on that work with this central idea, to separate the license from the degree. Everything else is incidental to that idea, and in the securing of the enactment of this law we had to make many concessions which we would be glad not to have made. I want you to bear in mind that there are three things that govern the securing of legislation of this kind: 1, what the profession would like to have; 2, what the law will permit us to have, and 3, what we can get under the existing political conditions.

The average medical man, in fact, every medical man in the State of Illinois, so far as I know, and I have corresponded with nearly all of them, wants a law to regulate the other fellow, but he does not want any law to regulate himself. This has been a great stumbling-block in the way of medical legislation. The men who are clamoring for legislation do not want to be affected by it in any way. The average physician does not recognize any constitutional limits. He simply thinks that the legislature passes a law, and that is all there is to it. Many of the demands of physicians of this kind were so unreasonable that they would not be worth the paper they were written on. Your committee has had in mind constitutional limits, that is, political conditions, the controlling factor in legislation of this kind.

There is another point, and it is this: Medical men generally have been so radical and so unreasonable in their demands for legislation that they have created a strong prejudice against legislation of this kind, not only in the minds of the public, but they have made other so-called schools hostile. It is a fact in medical legislation that about 10 per cent. of the medical men of the State can defeat the other 90 per cent. on an affirmative proposition. We had, as a matter of expediency and of necessity, if we wanted to get anything, to join hands with the other schools that are recognized by the state board of health. In doing that we had to lower our standard considerably from what would be the standard for this society, or for any body of regular medical men. We had to do this in order to get the one thing we wanted, and that was the separation of the license from the degree. We were willing to do this, provided it could be done on their terms, and it really meant the minority dictating to the majority. If we were not willing to accept it, we had to stop where we were. But we did not stop. When joint committees of the three State medical societies met and framed a law according to their idea of what the law should be, it was decided that our attorney should be instructed to put the matter in unmistakable language, and we employed one of the best attorneys in the State, Judge Shope, who has rendered more decisions on questions pertaining to the medical practice act than any other judge on the bench. When we told him what we wanted, he simply laughed at us. He said you can't get that and this in the bill. We even went so far as to provide that the Illinois State Medical Society should name the members of this board, and we were really ashamed of ourselves when he picked out the clauses. There, you see, was a bill framed by medical men. We had learned a lesson. When he got through the bill, it did not look very much like the original, but we saw the reason of his position and had to accept it. Two years ago we went before the legislature with that bill, which was substantially the same as the one introduced at this meeting of the legislature, but we did not have public and professional sentiment behind us, and the bill never got past the so-called judiciary committee. I was not surprised at this, because I did not expect it would. It was introduced for the purpose of creating a discussion. We wanted to organize the profession of the State, and with a few changes we submitted the bill at the present session. The bill as framed was drawn up by our attorney, Judge Shope, and submitted to the various State medical societies and adopted. Out of nine thousand copies of the bill sent out with a circular letter asking for an opinion, I received replies from about eight hundred. This indicates the interest (?) the profession took in it. While perhaps two-thirds were in favor of the bill, if some modification could be made, the other third was opposed to everything in it. Nearly every fellow had something he wanted in or left out. However, we did the best we could. We submitted the bill to the legislature as agreed on in joint committee as an evidence of good faith, although we knew it had some incongruous things in it and one or two points we knew would not be granted. There were two things in the original bill we could not get—one, the creation of a new board. This we could not get, for the reason that every trade, every profession almost, in the State of Illinois, was represented at Springfield asking for the creation of a new board, and the fact was, the whole board system was made so ridiculous by the demands of different trades and professions that it was considered a good joke. I mention this to show how impossible it would be to have secured the creation of a new board.

Another thing was the renewal clause, which was really a strong feature of the bill, and if the medical men and women of this State had seen it in its proper light, I feel sure it would have been endorsed by every member of the profession. But it was condemned so strongly by the profession that we left it out. We got in the present bill what we contended for, namely, the separation of the license from the degree, and we got some other things we wanted, and some things we did not want. We have not only got something which we believe is in advance of what we have had, but we have stopped, for the time being, hostile legislation. If we had not obtained something in advance of what we previously had, the other fellows would be on hand to get something that would still further lower the plane and knock the props out from under the present medical practice act. We have got the legislature to understand that the medical profession of the State is organized. Telegrams and letters from the forty-seven hundred medical men of the State poured into Springfield to members of the

legislature by the bushel. It is this that makes the average member of the legislature vote as you want him. This shows what medical men can do.

Find as much fault with the present bill as you may, but keep this fact in mind, that it is an advance over what we have heretofore had, however imperfect it may be, and all we have to do is, where we have found the bill weak, to go to work and improve it, and keep on doing it until we obtain what we want.

Again, there is a strong undercurrent in the profession itself against legislation of this kind. Quackery has honeycombed the profession of the State until there are many people, men and women, belonging to the Illinois State Medical Society and to the Chicago Medical Society who pretend to be respectable, but are far from it. They are doing quackish things. This is a strong indictment I know, but if I were to show you the letters I have received and tell you the things that I know that have occurred in connection with this matter of legislation, you would be convinced of the truth of my statements. We have had to fight those who have been hostile to us; we have had to contend with a strong undercurrent against higher medical education, and, worse than all, the apathy of the profession. It has been almost impossible to get the profession aroused to a proper sense of its duty.

While this bill ostensibly represents the sentiment of the medical profession throughout the State, and the large majority of the best element of the medical profession, your committee has only had a corporal's guard to give them the assistance needed in a work of this kind, and if we were less determined we would have dropped the matter long ago, and instead of having this bill, you would have been lamenting an osteopathic bill or something of that kind.

Dr. S. J. JONES—The large amount of good work that has been done by this committee is entitled to recognition. It is entitled to the thanks of the public, and I rise to offer a vote of thanks for the work that has been done, and I qualify it by saying in the interest of the public; I do not say the interest of the medical profession, for the reason that I do not think the medical profession needs this legislation. One of the difficulties the committee has had to contend with is a "medical trust." I have had occasion at former meetings of the State medical society to say that the average legislator is not able to rise to a comprehension of the fact of the unselfishness of the medical profession, the sacrifice that is made by us for the benefit of the public.

I have been one of the advocates of not requiring a diploma, but all who are to enter the profession should do so after an examination, because we well know that those who have been qualified to get a diploma from a respectable medical college would be able to stand an examination. I think we may congratulate the public on the result that has been attained. Many of you will remember the struggle initiated by Dr. Rauch, who frequently conferred with me regarding matters of medical legislation in trying to get them through, and he said it was always well to start by recognizing that we may not be able to get a whole loaf of bread, but that we should try to get as much of the loaf as we could if we have to put in an exempting clause. I would be glad if we could have had an independent board of examiners so as to restrict the medical colleges to the legitimate duty of teaching. It would relieve teachers of the most unpleasant duties they have to perform—to pass on the qualifications of those who have been their pupils. It would relieve them from restraint; it would change the aspect of affairs very materially if they were confined to the legitimate function of teaching. Then let the State establish its standard, whatever it may be, high, medium, or low, that shall entitle a man to the right to practice medicine within it, allowing the examiners, who are the constituted authorities, to decide whether or not he reaches the standard that is required. If he does, they can say to him, you can practice medicine in this State; if he does not, they can not.

I feel that we, in justice to those gentlemen who have sacrificed so much time in connection with this work, should do something to recognize their work, and I rise to move a vote of thanks for the good work done by this committee in the interest of the public.

Motion seconded and unanimously carried.

INVERSION OF UTERUS COMPLICATING PLACENTA PREVIA: ETIOLOGY AND MECHANISM CONSIDERED.

Dr. RUDOLPH W. HOLMES read a paper on this subject. In 830 cases of inversion compiled by various authorities he was able to find four cases (which includes his own) which comprehended both complications. *A priori*, placenta previa ought to be a frequent precursor of inversion, from the hemorrhages which are almost constant in the former condition, and a fruitful cause of the latter. The conditions found in previa are antagonistic to the etiologic factors of inversion.

Age.—In inversion, Crampton, Crosse and Stone give respectively 79, 70 and 76 per cent. occurring in women under 30 but 75 per cent. of births are in women under that age. In previa, Read and Mueller state 54 and 51 per cent. respectively above 30; previa is three times as frequent in the period when inversion is not prone to occur.

Parity.—In 338 cases of inversion, 58 per cent. are primiparæ, but first-born are to offspring of multiparæ as 1 to 2½ or 3. Preponderance is due to congenital causes in most cases in primiparæ; may be acquired from any change in structure of generative organs; fundamentally always dependent on errors of innervation—other causes but contributory. Simpson and Read state 92 and 80 per cent. of previas occur in multiparæ. Crampton, in 223 cases of inversion, gives 6 per cent. as prematurely confined, while Read, in 516 cases of previa, gives 88.3 per cent. as prematurely delivered.

Placental site.—Crosse says the fundal location of placenta is so constant that it may be considered essential; Hennig states that in 23 cases of inversion, the placenta was always attached to fundus or vicinity. In normal conditions fundal implantation is 22 per cent. (Read), 12 per cent. (Hennig) in 924 examinations by authorities collated by the former, and 651 by the latter. Inertia of placental site or distinct paralysis of same, or other local or general inertia is indispensable. Area about ora fallopii is prone to depression (Oldham); contraction of Ruysch's muscle increases depression. Pressure of breech (or head) on the fundus may cause anemia and later a paralysis which may be the beginning of an inversion, especially effective in oligo hydramnion or dry labors (Lahs); 65 per cent. (Lee), and 25 per cent. (Beckman) of placenta adherent. Duncan, Seiler, Desarmeaux attest to adherent placenta and inversion dependent on a common cause—inertia of placental site. Tractions on cord have produced inversion 26 per cent. (Lee), 36 per cent. (Stone), 21 per cent. (Beckman), 28 per cent. (Crampton). Credé's, on atonic uteri, violent means of delivery may cause inversion. Spontaneous inversion due to abdominal pressure, muscular action or placental influences; one effective, but usually all act by concerted action. Abdominal pressure always present in puerperal women though lowered; retentive power of that pressure absent about the lower part of uterus first hours postpartum. When a depression exists, muscular action may accelerate the inversion, but never starts the process unless adherent placenta is substituted for the depression; expulsion of afterbirth means dragging fundus after it. A short cord may pull out the atonic uterus when the child is expelled. A heavy placenta, normally so, or enlarged from syphilis, infarcts, or a retroplacental blood-clot of Schultze, may bring impetus to start inversion.

Mechanism.—Two general kinds: One fundus depressed into cavity—process completed from above downward; other process begins at cervix and progresses upward. Duncan interpreted the maneuver properly; Radford and Smith have based their theories on misconception of the true facts. Hunter first explained spontaneous active inversion. The cervix has no consideration in the mechanism—is a formless, inert structure, and of no clinic value. Duncan's views comprise four methods of inversion: spontaneous active and passive inversion, the propelling power being the abdominal pressure and muscular action in the former, and the pressure alone acts in the latter; artificial active and passive inversion, the former due to mismanagement accompanied by muscular action of the uterus, the latter caused by mismanagement of the atonic uterus. Crosse gave credence to inversion by eversion to cervix long before Taylor explained his theory of spontaneous active inversion. Duncan had depicted the condition as a normal one, due simply to the prolapse of a contracted body down on the atonic cervix. Taylor defines his theory in terms which can be only an exaggeration of physiologic activity of the uterus. According to him the longitudinal muscle-fibers alone contract, but for clinic purposes the muscular elements can not be isolated, nor can they contract without the participation of the other strands. Prolonged muscular action, as he describes, can only produce a diminution of the uterine volume, which precludes an inversion by active means. Neither can the process be produced by passive action, for Barbour and Webster have proven by frozen sections that the lower uterine segment and cervix are practically cut off from the abdominal pressure the first hours postpartum, by the uterine body which is in close approximation to the parietes; pressure is exerted on the fundus, and is in entire abeyance on the lower uterine segment. Spontaneous inversions comprise about 75 per cent. of all instances of the disease. The attenuation of the lower uterine segment in placenta previa minimizes the structure engaged in inversion, both theoretically and clinically, thereby lessening possibility of inversion after previa. Of greater import is the absence of fundal atony, and the absence

of abnormal stimulus (the depression) to the uterine body. In the passive type the inert lower segment is not influenced by abdominal pressure, but the operative deliveries stimulate contractions, and reduce probability of adynamia uteri. In Read's cases, 726 were operative labors; besides, 213 had placental manipulations. Artificial causes are 25 per cent. largely due to funic tractions, but in previa, methods of delivery tend to separate the placenta partially, or in toto, or at least tear the placenta so it comes away in pieces, thus reducing the surface acted on by the tractions in the manual removal of the same.

Cleveland (Ohio) Medical Society.

Meeting held April 28, 1899.

GUNSHOT WOUND OF ABDOMEN.

Dr. M. D. STEPP reported this case. After receiving the wound the man appeared to be paralyzed in both right arm and leg for about twelve hours. As there was no shock and the direction of the wound gave some evidence of only a parietal course, a surgeon was not called for twelve hours. There was then found some serum with a fecal odor exuding from the wound, but there was no fever nor other evidence of septic absorption. On operation, four ragged wounds of the small intestines were found, with fecal matter scattered throughout the peritoneal cavity. After cleansing the wounds they were sewn up with interrupted coaptation sutures over which were placed Lembert sutures, and the abdominal cavity was then flushed out with sterile water, filled with normal saline, and closed up, except for a drainage-tube. Recovery was uninterrupted, saline infusions being used once or twice for the extreme thirst and scanty urine.

Dr. A. F. HOUSE criticised the use of the drainage tube as unnecessary.

Dr. W. H. HUMISTON has discarded drainage altogether in abdominal work, and his mortality percentage has been decreased by it. Where there is oozing from torn adhesions, he uses the Mikulicz tampon.

Dr. F. E. BUNTS cited cases showing the necessity in wounds of the abdomen of thoroughly exploring both stomach and intestines to see that no opening is overlooked. He also considers the drainage-tube unnecessary.

SEPTIC THROMBOSIS OF CAVERNOUS SINUSES.

Dr. W. E. BRUNER'S case of this occurred in a male aged 40 years, and following the drawing of a tooth and opening of an alveolar abscess. Five days after the operation on the tooth the man developed pain, redness and swelling about the right eye. On admission to the hospital he had marked proptosis, enormous dusky-red swelling, general septic appearance, profuse sweats, and a temperature of 104 degrees. Free incisions into the orbit failed to reveal pus. Involvement of the antrum of Highmore was excluded. Three days later the process began in the left eye and in two days was as severe as on the right. Chills recurred daily with marked fluctuations of temperature. Ophthalmoscopic examination showed dilated tortuous veins, several retinal hemorrhages, and slight swelling of the right disc. The tongue was dry and coated and the breath fetid. Septic pleurisy and pneumonia developed at the base of the right lung, and there was severe diarrhea. There was some pus in both orbits now, but no edema about the face nor over the mastoid. His mind was clear almost to the last. The swelling about the right eye disappeared and then that about the left. The duration of the case was twenty days. Unfortunately, the family positively refused permission for a necropsy.

Dr. H. G. SHERMAN noted the rarity of involvement of the cavernous sinuses and questioned the possibility of an early diagnosis in the case. After involvement of the second eye it was not so difficult. He noted a recent case where, along with the sinus thrombosis, there was thrombosis of the facial and other related veins.

Dr. C. A. HAMANN had watched Dr. Bruner's case and pointed out the track of the infection from the alveolus through the pterygoid plexus of veins, through the foramen of Vesalius into the dural veins and the cavernous sinus. The fluctuation of temperature was characteristic.

Dr. SHERMAN said that in meningitis the temperature was likely to be very stationary.

Dr. H. S. UPSON thought that in septic meningitis, as in other septic processes, the temperature tended to be irregular. He drew attention to the importance of being able to make a differential diagnosis between sinus thrombosis and cerebral abscess.

Dr. F. E. BUNTS had watched the progress of the case and thought the gradual bulging of the eye, the septic infection, and the prompt involvement of the other eye made a clear diagnosis. He described a case of bulging of an eye complicating facial erysipelas which, however, subsided.

Dr. A. R. BAKER thought that there could be no question as to the accuracy of the diagnosis and reported a case of sinus thrombosis which had been treated as typhoid fever for two weeks.

Dr. C. J. ALDRICH had noted a case which began with sore throat followed by a tonsillar abscess which was opened under the sternomastoid. Sinus thrombosis developed and necropsy showed the track of the infection along the veins.

ACUTE YELLOW ATROPHY OF LIVER.

Dr. CHARLES H. BROWNING of Oberlin reported a case of a boy who died with the classic symptoms of this disease. There was no suspicion of phosphorus poisoning. Necropsy showed a liver in a marked state of acute degeneration, but when sections reached the pathologist they were structureless and nothing positive could be made out.

EPIDEMIC CEREBROSPINAL MENINGITIS.

Dr. W. T. HOWARD showed a culture on the blood serum from the fluid from the base of the brain in a case of the above. The discrete colonies of diplococci much resembled gonococci. They were not streptococci, staphylococci nor the diplococcus lanceolatus. This organism answers perfectly to the appearance and culture characteristics of the diplococcus intracellularis meningitidis described by Weichselbaum, in 1885, as occurring in cases of epidemic cerebrospinal meningitis. This case was indigenous in Cleveland. Curiously enough this organism is not as virulent as the other organisms which cause meningitis. It is surprising how few of the organisms are found in a fatal case.

Dr. MOREHEIMS of Lakeside Hospital gave the clinic history of the case. Temperature rose at night and was normal or nearly so in the morning. There were no disturbances of special sense. There was great pain in the head and back of the neck, and the blood count showed great leucocytosis. Otherwise the man hardly seemed at all sick. For an hour or so, twenty-four hours before death, his muscles were perfectly rigid and he could be lifted in one piece, as it were. He had a convulsion just before death. The duration was sixty hours from the time he walked into the hospital complaining of headache.

Dr. P. M. FOSHAY drew attention to the studies of Rogers, Hamilton and Brodie, in the *Lancet* for Oct. 22, 1898, describing an epidemic among the Kaffirs of South Africa, which began with an acute infectious rhinitis and developed into either pneumonia, parotiditis, dysentery or cerebrospinal meningitis, and was marked by the post-mortem finding of diplococci closely resembling those of pneumonia, in whichever situation the disease settled.

Dr. R. J. WENNER reported finding a pure culture of a diplococcus in the fluid from a lumbar puncture in a case of meningitis, which closely resembled the pneumococcus.

Cincinnati Academy of Medicine.

Meeting held May 8, 1899.

SARCOMA OF RIGHT LEG.

Dr. J. C. OLIVER reported a case of this affection, in all probability having its origin in the tibia. The patient was a man, 46 years of age, who thirty years ago had received a slight injury in the calf of the right leg. A slight lump, the size of a hickory-nut, formed at this point. About sixteen years later another slight injury at the same place resulted in a slight increase in the growth. Three years ago the mass began to gradually increase in size until the circumference of the right calf was over seven inches greater than the left, and the tumor, fluctuating at its lower part, measured over nine inches in length. A diagnosis of sarcoma was made and the patient told that he would probably lose his leg. Before amputating, however, the tumor was opened and it was found that by far the larger portion was cystic, containing a dark red, somewhat viscid substance, and that only the upper part of the mass was solid. The whole sac was dissected out, beginning at the popliteal space, and the patient made a good recovery. He does not expect recurrence. Photographs of the leg before the operation and also of the tumor itself ex situ, were exhibited. Microscopic examination by Dr. H. J. Whitacre revealed the solid portion of the tumor to be a myeloid sarcoma and the cyst wall to be entirely formed of muscle, probably the soleus.

MULTIPLE RUPTURE OF LIVER.

Dr. MARK A. BROWN exhibited a specimen which presented several points of rather unusual interest. The specimen had been obtained post-mortem from a patient who, while intoxi-

cated, had been struck by a locomotive and had died from shock and internal hemorrhage. Autopsy: A man, about 30 years of age, well developed and nourished, about six feet in height, and weighing between 170 and 180 pounds. On external examination there were present numerous bruises over various parts of the body, but none over the region of the liver. There was a complete compound dislocation of the right knee, with extensive laceration of the soft parts. None of the bones forming this joint were broken, nor indeed was there fracture of any of the bones of the extremities. There was effusion of blood into the lower lid on the left side. In the subaxillary space on either side was pronounced emphysema, and pressure here gave bone crepitus involving many of the ribs. There was no jaundice. The reason for this statement will be revealed later. On opening the chest both pleurae were found to contain a considerable amount of blood, and emphysematous blebs were present over both lungs. On the right side there were found fractures of the second, third, fourth and fifth ribs in the axillary line; on the left, the second, third, fourth, fifth and sixth anteriorly, and the third, fourth, fifth, sixth, seventh, eighth and ninth posteriorly. The heart was normal. The abdomen contained a large amount of bloody fluid, extending also to the pelvis. The intestines, kidneys, spleen, appendix, were all normal. A catheter was easily passed into the bladder, but on attempting to inflate the latter with water the fluid was found to escape into the abdominal cavity through a rent of about two inches on the anterior bladder wall. This was explained by the finding of a fracture of the innominate bone a little to the left of the symphysis, with the jagged ends pointing posteriorly. Another fracture of the pelvis was found in the neighborhood of the sacroiliac synchondrosis.

The liver presented the most interesting features of the autopsy. As it lay in its normal position the greatly enlarged, distended gall-bladder was found to extend downward about five inches below the free margin. The gall-bladder was almost in contact with the abdominal wall, and to obtain such a position a deep notch had been worn in the liver margin, showing that the hydrops must have existed for some time. The gall-bladder was so distended and tense that fluctuation could not be elicited. A large, single stone was found at the mouth of the cystic duct. Over the superior surface of the right lobe of the liver three ruptures of the hepatic substance were present, two of them quite long, but not extending very deeply. On the superior surface of the left lobe a small rupture was present. On the inferior surface of the right lobe, very close to the gall-bladder, was a large, deep, ragged rupture, several inches in length by as many in depth. The brain was normal, and careful examination failed to reveal any fracture involving the bones of the skull.

The points of chief interest may be summed up as follows: that the man should have lived as long as he did after so many and so severe injuries, even to the retaining of consciousness; that with the extensive involvement of all other parts of the body and the nature of the injuring force, the skull should have escaped fracture; that with almost complete avulsion of the right knee the bones going to form the joint should have escaped injury; that none of the bones of the extremities should have sustained a fracture; that the liver should have been ruptured at so many points without marks of external violence or of penetration of broken rib fragments; that the tense gall-bladder should have escaped rupture, with so many ruptures of the liver in close proximity.

CASE OF BRANCHIAL CYST.

Dr. E. W. WALKER read a paper on this case, which he had operated on when the child was but eighteen days old. It was also complicated with a blood cyst which had increased enormously from the day of the child's birth, so that when the child came to be operated on the mass had extended from the right mastoid process to several inches beyond the median line of the neck. A hypodermic needle withdrew practically pure blood. The branchial cyst was not apparently connected with the blood tumor. The latter was at first about the size of a walnut, situated at about the angle of the jaw, and grew to the proportions above mentioned in less than three weeks. Attempts had been made to check its enlargement by mechanic means, adhesive straps, etc., but without avail. The pressure of the enlargement upon the trachea and the amount of blood lost by the child in filling this rapidly growing sac, led him to operate. The operation was in every way a success. He did not know which of the large veins of the neck furnished the blood for the sac, as his chief interest had been in checking the hemorrhage.

RUPTURE OF CHOROID.

Dr. FRANCIS DOWLING read a paper based on a recent case in his own experience, the injury having resulted from a blow on the eyeball. His case was a little out of the usual run in that the rupture had extended in an almost horizontal direction. The man's vision after the subsidence of the swelling about the lids, was $^{20}/_{200}$. Unfortunately for the patient his other eye was very amblyopic from an old uncorrected convergent strabismus. His treatment had been mainly with iodid of potassium, though most authorities agreed that no treatment was of any avail. Sequelæ in the shape of optic atrophy and gradual blindness were not uncommon in these cases, supervening as a rule after several months, and due to the contraction of the cicatricial tissue formed during the healing of the tear. One of the principal and curious symptoms of the early history of this case had been that a straight line had appeared broken and that the letters of the text had assumed a zigzag appearance. The man had improved so much at the end of two months that he had been able to resume his usual occupation that of journalism.

Philadelphia Obstetrical Society.

Meeting held May 4, 1899.

ETIOLOGY OF ECLAMPSIA AND DIAGNOSIS OF IMPENDING ECLAMPSIA.

Dr. EDWARD P. DAVIS read a paper detailing the older theories in regard to this condition, in order to show why there had been failure in applying the proper remedies to effect a cure. This failure was doubtless due to the fact that the etiology had not been recognized. The theory of Trauber-Rosenstein, that it was due to hypertrophy of the left ventricle, to edema of the brain, etc., had been disproved by careful autopsy. The present and most rational theory, that it results from some form of autointoxication, is gaining ground rapidly. Some writers hold to the belief that eclampsia is due to the life of micro-organisms, and staphylococci and streptococci have been demonstrated in the blood. The evidence goes to show that eclampsia is a form of toxemia resulting from the absorption of waste products generated by both mother and child. The chief characteristics seem to be a form of ceilular necrosis, with hemorrhages into the placental tissue and deficiency of the renal functions. For the positive evidence of the essential cause we will doubtles have to look to the urine and blood. It is known that the urine at the time of the eclampsic seizure is less toxic than either before or afterward, which doubtless is due to the retention in the blood of products that should be eliminated by the kidneys. For this reason the urine test is a very valuable one. Urea, in itself, is non-toxic, but it is a clinic index to metabolism, and of the amount of toxemia present in a given case. A diminution in the amount of urea means that toxins are being retained in the system during normal pregnancy, while an increase of urea indicates that everything is going well. In the estimation of the urea he has found Squibb's apparatus useful. In all cases of pregnancy we should make repeated examinations of the urine. Probably the next most important organs which should receive attention are the liver and the bowel. Jaundice during pregnancy is a very unfavorable symptom. Constipation must be prevented, and in order to prove that it does not exist the abdomen should frequently be palpated. The patient's word is not a sure method. In case constipation is found it should be corrected by proper diet and a free use of salines. In order to treat the condition efficiently we should bear in mind the etiology and pathology. It is essentially a toxemia. 1. We can gain an index of the condition by a frequent examination of the urine. 2. We should prevent constipation.

Dr. BOYD stated that he had been impressed with the importance of making frequent examinations of the urine in cases of pregnancy, especially the estimation of the amount of urea. The preventive treatment consists in a careful study of the given patient. While the disease is considered to be a form of toxemia, all of the symptoms can not be thus explained. Regarding the operative treatment of the condition, he has been in the habit of rapidly emptying the uterus by manual dilatation of the cervix, and subsequently delivering the child by version or by the use of the forceps. In no case has he seen convulsions occur after the uterus has been emptied in this manner.

Dr. ANNA N. FULLERTON agreed that eclampsia is a form of toxemia. At the Woman's Hospital it is the custom to make examinations of the urine at least once each week, and if albumin is found the urine is examined daily. For the treatment of constipation she has found sodium phosphate in doses of a half dram in water before meals of much benefit. In the treatment of convulsions she makes use of hot tub baths, hot blankets, chloral, chloroform and hypodermics of morphin. It has not been her teaching nor experience that rapid dilatation is

the best method of treatment in eclampsia. She has, however, made incisions in the cervix which aided in hastening delivery.

Dr. W. R. WILSON was impressed with the importance of giving hypodermics of morphia in prolonging the effects of the anesthetic in case of the convulsions. The two periods when seizures are apt to occur is when the head is making its exit from the cervix, and when the head is passing over the perineum. He has great faith in calomel as a prophylactic measure. Chloral he considers the sheet-anchor in the treatment of the condition. In large loses by the rectum he thinks it has produced free diuresis. In many cases he considers pilocarpin and veratrum too depressing.

Dr. LONGAKER said that there exists the greatest amount of diversity of opinion regarding the use of veratrum, some writers employing it in very large doses, while some believe it should never be used. In the active treatment one author has seen good results from the employment of *accouchément forcé*.

PREVENTIVE TREATMENT OF ECLAMPSIA.

Dr. RICHARD C. NORRIS read a paper on this subject. The rational treatment is prophylaxis of toxemia. The preventive treatment can only be carried out effectually by a critic study of each individual case. The best preventives are proper diet, frequent baths, plenty of outdoor exercise, correction of constipation, and above all frequent examination of the urine. It is not sufficient to simply detect the presence or absence of albumin; the amount of urea must be carefully estimated. Calomel at intervals does good. Rest in bed, with the body in the genupectoral position, is also beneficial. In some cases he has resorted to flushing out of the colon (two gallons) with decided benefit. In order to get rid of the poisons nothing is so effectual as the employment of Rochelle or Epsom salts. The best guide in determining labor in these cases can only be obtained by a careful examination of the urine. He gave brief histories of two cases in order to show the importance of preventive measures. In severe or neglected cases palliative measures are a mere waste of time.

Dr. E. P. DAVIS thought that pathology was ahead of therapeutics in this condition, but that we too frequently overlook this pathology. In hospitals, where systematic examinations of the urine are made, eclampsia is very uncommon. The cases he has seen at the Jefferson Hospital were those brought in by the patrol or ambulance. The active treatment which he has employed to advantage consisted in placing the patient in hot packs, the introduction of a large amount (two gallons) of normal saline solution into the bowel, transfusion, chloroform to control the convulsions, and hypodermics of veratrum (10 minims repeated every half hour until three doses had been given). He does not approve of rapid dilatation, nor any other rapid process of delivery. In some cases Cesarean section might be indicated. In one case in which he had resorted to the latter procedure, the child lived for a period of two weeks, dying of toxic substances absorbed during the life of the mother, as was clearly proven. The time is coming when we will have a reliable test by an examination of the blood serum, and when we will treat the disease by antitoxins.

Maryland Public Health Association.

Third Annual Meeting, Baltimore, May 11 and 12, 1899.

Dr. EDWARD M. SCHAEFFER, who succeeded the late Dr. Rohé, presided, and in opening the session urged that physical training be placed on an equal footing in our schools with training of the intellect. After a well-merited tribute to the memory of the late Dr. Rohé, he spoke of the good work done by the State board of health, the city health commissioner, the health protective branches of the United Women of Maryland, the Arundel Club and other organizations. He concluded by pointing out that we must not educate our children out of their bodies and wits; we must teach the art of right living and not dicker off health for book knowledge.

FOODS, THEIR NUTRITIVE AND ECONOMIC VALUE.

C. F. LANGWORTHY, Ph.D., of the U. S. Department of Agriculture, presented this paper, based on experiments made by the department, particularly those of Professor Atwater on a man who lived for two weeks in a respiration calorimeter (a copper box), where the effects of various foods, their nutritive power, heat and energy products were recorded. A man doing severe manual labor needs about 1.2 times as much food as one at ordinary work, such as carpentering. So a man sitting at his desk all day requires only .8 of that which the carpenter or plumber requires. From such dietary studies interesting dietary standards have been drawn up. As to the expense of a proper diet, 18 to 22 cents per day will furnish a sufficient and attractive diet, if care be used in selection and preparation. What we need is not more food but more thought.

Dr. HEMMETER said that one of the greatest mistakes in dietary history had been made in the recent war with Spain. It is useless, he said, to assert that our soldiers were well fed and that there was nothing wrong. He regretted that this splendid opportunity had not been in the hands of men equipped with requisite scientific knowledge and thoroughly disinterested.

VACCINATION.

JAMES U. DENNIS, Jr., attorney-at-law, discussing the legal side of the question, showed that the State had the right to enforce vaccination.

Professor WELCH spoke from the standpoint of the bacteriologist, and regards vaccination as only a modified smallpox, changed by passing through the system of the cow. It has been proven again and again that smallpox can be conveyed to the cow, young heifers being especially susceptible.

The association adopted rules for the transportation of dead bodies into or out of the State; they are the same as adopted by the National Association at Nashville in 1897. They will not be put into effect at once as the association wishes to first ascertain the competency of the undertakers to carry them out.

The program of the meeting was embellished with a very fine halftone of the late Dr. Rohé.

TREATMENT OF ACUTE RHEUMATISM.

BY HENRY B. FAVILL, M.D.

The discussion of the above paper, which was printed in the JOURNAL last week, p. 1017, was unavoidedly omitted then and is given below.

Dr. HAROLD N. MOYER—One difficulty of dealing with rheumatism is that so many diseases are included. I listened attentively to Dr. Favill's paper regarding the rheumatisms of childhood and the classification of them, including in that group chorea, and I would take decided exception to the classification he gives. I am confident that the common acceptation of chorea as a rheumatic affection in a certain number of cases, presenting joint and cardiac complications, is entirely erroneous. I am confident, too, that we have at least three diseases that are classed under the so-called chorea of childhood or Sydenham's chorea; one of those is an infectious disease, but I do not believe it is necessarily an infection that allies itself with rheumatism. I am speaking now of the acute variety of articular rheumatism. I believe it is a specific infection in which the joint and cardiac complications are accidental just as they occur in other infections, as typhoid, gonorrhea, and other well-understood and well identified infections. This view is supported not by the literature in this country, nor that of Germany, but there is considerable Italian literature bearing directly on the theory of a specific and distinct infection in the chorea of children which is accompanied by joint and cardiac complications.

I believe that there is another variety of chorea which is never accompanied by so-called rheumatic complications, but is undoubtedly a nervous trouble, speaking in the sense of neurasthenia or other functional trouble of the nervous system, and not due to infection at all. There is possibly a third variety which is comparatively frequent, and which is due to a degenerative process that goes on to chronic chorea, lasting all through childhood, perhaps into adult life, and becoming a life long disease. We must remember that the chorea is only a symptom, and it is present in a variety of nervous affections. If we approach the study of the rheumatisms of childhood and those associated with chorea from this standpoint, we get a different result from what we do when we group them under the one head and regarding the cardiac and joint complications as mere accidental complications of some of them, but being only one disease. I believe that other complications grouped under rheumatisms are due to specific infection. I see now and then cases of peripheral neuritis, some of them bearing a resemblance to progressive muscular atrophies in which joint complications play a most important rôle, and in some of the cases, if carefully observed, we will find this process comparatively rapid I won't say acute, because it lasts for weeks and months, and the disease is accompanied by profound nutritional disturbance; frequently albumin is found in the urine, with only a few hyaline casts. In other words, we have a picture of systemic infection of a slow chronic character, but without temperature. These cases are commonly classed as rheumatic, and I think somewhat unwisely. I am inclined to think a number of systemic infections unaccompanied by fever are characterized by joint and cardiac phenomena that so commonly accompany rheumatism. We have a large number of infections, indeed, distinct dis-

eases, which we group under this term, and it is this grouping and want of identification of the exact morbid causes underlying them that lead to a wide variation in treatment and our knowledge of the term rheumatism. My views have largely been from the standpoint of the nervous system, but their applicability to other tissues and other structures, is apparent.

Dr. M. L. GOODKIND—I think our clinic experience coincides with the views of Dr. Favill, that a number of cases of chorea are rheumatic in origin, and possibly 50 per cent. of them are accompanied by heart complications. There is usually nonresponse to the ordinary remedies we apply to the usual run of cases of chorea. I have seen a number of cases that have failed to respond to large doses of arsenic, in some cases hypodermically, yet have responded quickly to the salicylate treatment. Another point is the temperature complicating this class of cases, it being in some instances 101 to 102 degrees.

Dr. GEORGE WARREN REYNOLDS—Where the salicylates and alkalies seem to disagree in rheumatism, producing sleeplessness, loss of appetite, great prostration, etc., I have occasionally given with great benefit mercurial purges, with dilute sulphuric acid, particularly in those cases complicated by endocarditis, at the same time immobilizing or wrapping the joint or joints well in a flannel.

Dr. EDWARD F. WELLS—I would like to ask Dr. Favill what his experience has been with the different forms of salicylates, those derived from the oil of wintergreen, and those made synthetically. This matter has a particular bearing on cases of rheumatism in persons suffering with interstitial nephritis. Recently, I saw a case of rheumatism in a large, elderly gentlemen who, for a long period previously, did not excrete 200 grains of urea per day. In my experience, in cases of this kind, I invariably order salicylate of soda, made from the oil of wintergreen. I have watched these cases carefully, and I have not seen the albumin increase in quantity, and I would like to ask Dr. Favill what difference, if any, there is in the action of the two forms of salicylate.

One other question of practical importance is the early diagnosis of endocarditis if it should accompany rheumatism. When endocarditis occurs—and we must recognize the fact that one third of all cases of acute rheumatism are accompanied by endocarditis, and one-half of all rheumatic patients, sooner or later, have it—the early recognition of the condition is important. It usually occurs in the early days of the attack, say the first ten days. I believe physicians who carefully examine the pulse, especially with the sphygmograph, will have very little difficulty in diagnosing the beginning of endocarditis, while those who depend upon the stethoscope for signs will have to wait, in doubt, many days before a murmur appears. Given a case of rheumatism with a pulse rate of 110 to 120 in the first week, and suddenly, without other apparent causes, the pulse rate ascends ten or twenty degrees, and remains so, with a peculiar thrill, and probably some irregularity in the pulse, which shows plainly in the sphygmogram, with a radical change in its character and there is little difficulty in diagnosing endocarditis. In the beginning of endocarditis we get, distinctly, small tracings, with slight irregularity. I do not mean to say that there is any form of sphygmogram which is indicative of endocarditis, for there is no more a normal sphygmogram in any disease than there is a normal countenance in any face; they vary infinitely, but the sphygmogram, having been definitely determined for a particular patient and in the disease with which he is affected, sustains a change, radically, and remains so, and it is this point to which I desire to call attention, believing that it is worthy of consideration. It may be considered a strong reflection upon the diagnostic acumen of medical men when we find that a large proportion of organic diseases of the heart are discovered, for the first time, in examinations for life insurance or incidentally. The history of such cases is something like this: A man has had rheumatism; he may have had several attacks, and at the end of four or five weeks he has recovered and resumed his work, but in the particular attack in which endocarditis developed he did not so recover; he lingered along three or four, or possibly seven or eight months before he felt able to resume his occupation. These are to be sure, the lighter cases, in which the ordinary effects and greatly impaired heart are not manifested. The severe ones can scarcely escape correct diagnosis. In conclusion, I believe there are few cases of rheumatism with endocarditis in which the latter affection will escape observation if we are but careful to look for it in the right place, that is, in the pulse, rather than in heart murmurs or sounds. I do not wish to be misunderstood as undervaluing in the least the use of the stethoscope, because every means of diagnosis should be used, but the character of the pulse should be considered very carefully indeed.

Dr. JOHN H. HOLLISTER—I would like to ask Dr. Favill to tell us whether he has ever encountered in his experience this disease in the form of an epidemic, or whether he has had a multiplicity of cases in connection with particular climatic conditions. Some years ago I saw some remarkable manifestations of the disease, and the affection seemed to be of an epidemic character.

Dr. FAVILL (closing the discussion)—With reference to the question propounded by Dr. Wells, I do not know anything about the relative effects of the salicylate of soda derived from the two sources he indicates. Nowadays, nearly all of the salicylate we use comes from synthetic products, and unless we take special pains we get no other.

As to the question of Dr. Hollister with reference to the epidemic character of rheumatism, I will say that my own observation coincides with his, that there are very distinct variations in frequency in the occurrence of rheumatism and rheumatic affections; occurring in such groups and with such frequency as to at least suggest a character which is by no means accidental. For example, this year I have seen twice as many cases of rheumatism as I have seen in four years before altogether. It is a very frequent disease in the run of hospital patients this year. What that means I do not know.

With reference to the question of the sphygmograph, I agree with Dr. Wells, although my routine does not include it as much in rheumatism as it does in many other conditions. However, I am a firm believer in the use of the sphygmograph. It takes good sense to use it, and the physicians who scoff about its scientific value do not understand it. I have heard it scoffed at many times, upon the ground that it is not of great value in diagnosing types of disease. I consider it of great value in diagnosing or detecting changes in circulation and dynamic alterations too subtle for the touch, as indicated by Dr. Wells to-night, and it is of distinct value with reference to determining general arterial pressure, which means largely general capillary conditions, both structural and functional.

With reference to the argument of Dr. Moyer, I am very glad that what he has to say represents a class of practitioners who have a distinct view upon this matter which is contrary to that held by many internalists, and I must say that it is rather gratifiying to be able to hold my views as unshaken after his presentation of the neurologic side of the case, as I see nothing in his presentation of this matter which in the least affects my belief or modifies my statements. Dr. Moyer's contention is based upon a false view of this question, and I wish to repeat what I said at the outset of this discussion, that rheumatism is not necessarily arthritis; also, that rheumatism is not necessarily endocarditis, or pericarditis, and it is not necessarily chorea of children. When the clinician takes a broad view of the general physical makeup and conditions pertaining to children, who present either arthritis, endocarditis, or a certain type of chorea, it is impossible for him to avoid the impression, if not the conclusion, that there is an intimate connection between these various processes, and to simply say that the arthritis, which occurs in the course of chorea, is not rheumatism, is but utterly begging the question, or also, that endocarditis, which occurs as a sequel or as a sequential step to chorea, is not rheumatism, is again to beg the question. It is not at all a meeting of the issue, and consequently I am not disposed to regard it as an especially weighty comment. I believe that the whole thing is largely a question of intoxication, with one, or more possibly, intercurrent, superimposed infective agencies, and that the various pictures which we now, more or less ignorantly, group as rheumatism, can be separated somewhat. But they have an intimate relationship, if not in the character of their immediate infective agency, in the character of the underlying physical condition of the patient, particularly in the type of metabolism of that individual, and hence I am more disposed to regard the matter as I primarily stated than I was before hearing the contention of Dr. Moyer upon this point.

England's Marriage Rate.—This rises with increase of prosperity, as shown in the registrar general's annual report, just issued. It is the highest within the past twenty-one years. The point is made that the rate is always in touch with the value of wheat, exports and imports. Nearly half the bachelors and spinsters were married between the ages of 21 and 25, while the favored age for the remarriage of widows and widowers was between 35 and 40. In one out of every hundred of the marriages, husband and wife merely affixed their mark to the certificate. Another fact is also made apparent: that young people, for the past twenty-five years, wait longer for the wedding.

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SATURDAY, MAY 20, 1899.

TREATMENT OF PULMONARY TUBERCULOSIS WITH ANTITUBERCULOUS SERUM.

There is good reason to believe that the last two decades have witnessed a distinct, if slight, reduction in both the prevalence and the fatality of tuberculosis, and the hope seems not unreasonable that this reduction will go on. This favorable result is directly attributable to a better knowledge of the nature of the disease, of its etiology, its mode of dissemination, its prophylaxis and its treatment. Experience has taught that the desired result may be attained in various ways, of success in any of which the best index is the state of nutrition. Though our efforts be directed unflinchingly and unceasingly against the tubercle bacillus, we know that we have been most victorious when we have rendered the patient resistant to its invasion. This is a natural condition with some animals, and in some degree with some human beings, and to its establishment or fortification therapeutic effort may be hopefully directed.

The results of serumtherapy as applied to tuberculosis have not been entirely satisfactory, although the principle is still applied and the practice pursued in one form or other by various trustworthy observers in different parts of the world. More difficult problems than this have submitted to solution at the hands of persistent investigators, and it is not at all beyond the domain of probability that the near future will see the medical man supplied with a potent and specific remedy against the great white plague.

At a recent meeting of the Royal Medical and Chirurgical Society WILLIAMS and HORROCKS (*Brit. Med. Jour.*, April 1, 1899, p. 790) gave an account of observations made in nine cases of pulmonary tuberculosis treated at the Brompton Hospital, with antituberculous serum prepared at the Jenner Institute of Preventive Medicine by inoculating a horse with progressively increasing amounts of tuberculin until no reaction followed. Twenty-one days after the last injection, one liter of blood was withdrawn from the left jugular vein, the clot removed and the serum mixed with a weak solution of carbolic acid—for preservative purposes—and transferred to sterilized bottles. Five patients, with acute tuberculosis or with chronic tuberculosis and acute exacerbations, were treated with this serum in doses commencing with 1 c.c., gradually increased to 10 c.c., and for periods of from fifteen days to three months, the injections numbering from fifteen to twenty-five. The immediate result was rise of temperature and acceleration of pulse, slight urticarial and erythematous rashes and enlargement of the axillary glands. The amount of expectoration increased, the contained pulmonary tissue diminished, except in one case, in which it was increased, the number of septic organisms diminished in two cases and they disappeared in two cases. In only one case was there a diminution in the number of tubercle bacilli. The general condition of the patients deteriorated and one died from a fresh eruption of tubercle and its attendant pleurisy some time after cessation of the injections. Two of the patients gained a few pounds in weight, but the physical signs at the close of the treatment showed that tuberculization and excavation had gone on, unchecked by the serum injections. The urticarial rashes were apparently due to the amount of carbolic acid used for preservative purposes, as they disappeared when the amount was reduced.

It was next determined to use serum obtained at longer intervals after inoculation of the horse with tuberculin, and to employ smaller doses, beginning with 1 c.c., and never exceeding 5 c.c., and to use it in cases of incipient and limited tuberculosis, as well as in cases of limited excavation. The serum was now obtained seventy-two days after inoculation and employed in two cases of unilateral limited tuberculosis and also in two of excavation limited to one lung, and the results proved a marked contrast to those of the previous experiments. The treatment was carried out for longer periods, being better borne, and from thirty-two to fifty injections were given in doses of from 1 to 5 c.c. The injections in no case gave rise to local swelling or irritation or rash, either urticarial or erythematous, but in all the cases the axillary glands became enlarged. The temperature sometimes rose after the injections in one case; in the other three cases the records were invariably normal or subnormal. Pulse-rate and respiration-rate were not materially affected. All four patients gained in weight, the two with excavation most, one 12½, the other 14 pounds; and the patients with tuberculization, 5½ and 6 pounds, respectively. All increased in strength and vigor and were

able to return to their work, except one in whose case a lighter occupation was substituted for a comparatively trying one. Cough and expectoration diminished in all and in one case ceased altogether. The physical signs indicated limitation of the area of disease in the lungs in the cases of consolidation, and in the two cases of cavitation, quiescence of the cavity in one and complete contraction in the other. In three cases the tubercle bacilli in the sputum diminished greatly in number, and at times disappeared altogether, but at the close of treatment there were still some to be detected. In one case they did not diminish at all, although the patient improved generally. The other organisms, diplococci, staphylococci and streptococci, disappeared in the two cases of cavity, and in the cases of consolidation they were noted throughout, though in diminished numbers. In one case of excavation two injections of antistreptococcic serum were followed by no special effect on the pyrexia or the general condition, but the septic organisms disappeared from the sputum. The conclusion was reached that to produce an antituberculous serum capable of controlling the evolution of tuberculosis in the human body a considerable interval must elapse between the inoculation and the date of the withdrawal of the serum, for when taken a few weeks after inoculation the effects closely resemble those of tuberculin.

The results in such a small number of observations can not be accepted as in any way conclusive, but emanating from such a trustworthy and conservative source, and taken in conjunction with similar evidence from other sources of analogous character, long deferred hope is sustained that science and art will yet together bring forth a remedy of curative value in the treatment of tuberculosis.

IMMUNITY IN TUBERCULOSIS.

It is a fact to which no exception can be taken that many of those afflicted with lung tuberculosis eventually entirely recover from the disease. The chain of evidence is complete: the sufferers have presented its symptoms and physical signs, tubercle bacilli have been demonstrated in the sputa, there has been a gradual return to health, they have died long years afterward of some totally foreign affection, and post-mortem examination has shown the remains of their once active disease in the form of fibroid encapsulating processes and evidences of calcareous degeneration. Every pathologist knows that many cases dying from other causes show at the autopsy healed tubercular lesions, particularly at the apices of the lungs. A most careful review of the lives of many of these people would fail to reveal a history of any illness of such a character as to point to the lungs as the offending organ. We attempt to explain this by saying that the natural physiologic resistance of the tissue walls in the diseased areas; but with the march of the disease—of any disease, in fact, if unrecognized because then untreated—would we not rather look for a diminution in this so-called physiologic resistance and a consequent increase in the rapidity of spread of the pathologic process? Why should not this physiologic resistance have been more efficient in the erection of its barriers in the very incipiency of the disorder, when the body as a whole was undoubtedly in a condition more capable of resisting invasion?

The discovery of the value of vaccination in preventing smallpox or in limiting its ravages long since pointed out a fact the importance of which has only of late years begun to be fully realized. It is absurd to explain the legitimate cure of such a disease as typhoid fever, which so commonly attacks an adult in perfect health, and leaves him in a few weeks a weakened wreck, as due to an increased physiologic resistance; increased how? Undoubtedly some subtle change has been going on within that economy which gradually rendered the soil untenable to the growth of that particular germ. This change we have called immunity. Immunity may be hereditary or acquired, and it may be acquired by artificial or natural means, as by passing safely through an attack of the specific disease. Immunity may be permanent or the patient may have scarcely passed into convalescence before being again stricken down. Without going deeper into the many discussions this interesting subject brings up, it can hardly be doubted, in the light of our present knowledge, that when recovery from an infectious or contagious disease occurs, an immunity either temporary or permanent has taken place; or as said before, the growth and increase of the specific micro-organisms within the system has brought about a change in the tissues of that body that renders further existence on the part of that particular germ at that time impossible. The term "immunity" is in a sense but another cloak of ignorance; we do not know of what the change or changes consist. We do know, however, that it may be influenced by age, sex, condition of health, environment, and the like conditions, and that while an individual may readily resist the invasion of one disease he falls an easy victim to another.

KOCH and others have shown us that even in guinea-pigs, susceptible as they are to the tubercle bacillus, an artificial immunity can be produced; that these animals by the gradual immunity acquired by the use of the tubercle bacillus substance (KOCH'S tuberculin R), are able to resist a very virulent infection, while the animals kept for control, not so injected, rapidly succumb. The autopsies demonstrated typic, active, tubercular processes in the latter animals, while the protected ones at most, if infected before injections were begun, showed only fibroid changes, and no tubercle bacilli. We know then that tuberculosis also belongs to that group of diseases in which cure, when it occurs, is brought about by the aid of an acquired natural immunity. If immu-

nity is due, and we think it is, to the action of the products of the particular germ producing the disease on the tissues of the body, or to exhaustion, permanent or temporary, of the favoring soil, it is strange how often a failure must be registered and the process extend to such a degree that the victim dies from the direct impairment of some vital force. This failure occurs in all forms of tuberculosis, both acute and chronic. When we reflect that in the chronic form, bacterial activity is not very great, that to produce and maintain immunity the products of the tubercle bacilli must be present in all the tissues, carried by the blood, and in all probability must be frequently supplied; when we take into consideration the difficulties in the way of dissolving the tubercle bacillus substance, owing to the protection afforded by the non-vascular tubercles, we, at least, have a plausible explanation for the cases that pursue a slow and tedious downward course. This difficulty of attaining and maintaining immunity will also serve as an explanation why chronic cases so frequently become generalized. In the acute cases, on the other hand, where most of the organs of the body become involved, the patient is overwhelmed from the outset by the virulence and amount of the toxins absorbed, and the subsequent exhaustion that follows the high fever and its accompaniments so lowers the resisting power that caseation of the tubercles ensues with great rapidity. Here, while the immunizing substance is present in great abundance, it has made its appearance too late. For while the tubercle bacilli do not thrive, as is shown by their paucity in microscopic sections, the exhaustion produced by the breaking down of tissue substance, often the entrance of the germs of suppuration, is sufficient to cause speedy dissolution. Reasoning from these theoretic standpoints we can see why it is that so little success has followed our attempts at artificial immunization; that to do good immunity must be produced early—before caseation has occurred; for after that time we are but supplying what we have reason to believe has been already furnished in large quantities by the fierce bacterial activity displayed—and which has failed to accomplish any appreciable good. At this period the conditions have materially changed, and we have now to fight the exhaustion, the hectic, the diarrhea, and not so much the tubercle bacillus.

CARBURETTED WATER-GAS.

In February, 1898, a British royal warrant was issued appointing a committee to inquire into the manufacture and use of water-gas and other gases containing a large proportion of carbonic oxid. The professional members of this committee were Dr. H. F. PARSONS, assistant medical officer of the Local Government Board, and Prof. WILLIAM RAMSAY, of University College, London. In the course of its inquiry, the committee examined many expert witnesses and made careful and elaborate experiments, the details of which appear as appendices to its report recently submitted to the Houses of Parliament.

The committee found that carburetted water-gas was first used in the United States in the year 1878, and that in 1896 it constituted 70 per cent. of all the illuminating gases manufactured in this country. In Great Britain its use was begun in 1891, and, in 1897–98 the plants established, if worked to their full capacity, would have furnished 24 per cent. of all the illuminating gas supplied. The proportion of water-gas in the gas-supply of certain places was, however, much greater than this, for although the works were not utilized to their full extent the number of towns using this gas was relatively small. The practical advantages to which must be attributed the rapid extension of water-gas manufacture are its economy and the readiness with which an increased output of the gas can be produced in emergencies. Besides these advantages carburetted water-gas requires per unit of light given out in its perfect combustion little more than half the quantity of air that coal-gas requires; its vitiating products are but half the quantity produced by coal-gas, and its sulphur is only one-fifth of that ordinarily present in the latter.

There is no greater likelihood of explosion with it than with coal-gas, but there is a greater danger of poisoning attending its escape unburned, as it contains as much as 30 per cent. of carbonic oxid, while coal-gas has only 4 to 12 per cent. of this dangerous constituent. In the daytime an escape of carburetted water-gas is as easily detected by its odor as one of coal-gas; and it is regarded as practically impossible for slight escapes from imperfect fittings to produce a poisonous atmosphere even at night. The existence of anything like chronic poisoning by carbonic oxid has not been established. Danger is confined practically to large escapes into rooms where persons are asleep. Such escapes are due to the unnoted turning on again of a tap which has been turned off, to blowing out the light, and to extinguishing the light by turning off at the meter with a subsequent renewal of the gas flow through the open bedroom taps. Most of the statistics of deaths from the inhalation of carburetted water-gas presented by the committee were gathered from the reports of the State Board of Health of Massachusetts. From these statistics it is concluded that the loss of life arising in one way or another, accident, suicide or homicide, appears to be fully one hundred times greater with carburetted water-gas in the United States than with coal-gas in Britain. The committee is unanimously of the opinion that the poisonous action of the gas is due solely to the carbonic oxid which it contains, and that benzin, ethylene and marsh-gas, when present in such proportions as would occur in an atmosphere rendered poisonous by gas leakage, are not the dangerous factors. The only effective method of preventing danger in

the use of water-gas is to fix a limit for the carbonic oxid. Power should be conferred on a central department, to make regulations enforceable by adequate penalties limiting the proportion of carbonic oxid in a public gas-supply, at night, to "12 per cent. or such greater amount as the department may consider desirable," and in all cases where a limit has been placed there should be some person empowered and required to test for carbonic oxid and publish the results periodically.

It is difficult to forecast what, if any, will be the action taken in the way of legislation on this report. They are more conservative in England than we of the United States. They are slower to harness a new and dangerous agent for steady public service, but having done so their conservatism leads to greater promptness in guarding against its dangers. Water-gas was in use in the United States twelve years before it was accepted as an element of progress in England; but the English are already considering methods for lessening the danger attaching to its use, while we permit every individual to look after his own safety, and if he fails to do this so much the worse for himself. With us it would seem as if human life was not considered when commercial interests are at stake. Our history shows local authorities denying the existence of yellow fever and exposing the people to epidemic outbreaks to postpone a break in their commercial intercourse. Typhoid fever is permitted to strike down its thousands, annually, because of monied interests in existing impure water-supplies. Rapid transit is accepted and it is long before efficient guards are thrown out against its dangers. In the early days of the use of carburetted water-gas in this country, the State Board of Health of Massachusetts succeeded in placing a 10 per cent. limit on the carbonic oxid of gas-supplies in that commonwealth but, in 1890, when England was beginning to use the new process of gas production, this law was repealed. Perhaps should the British throw out safeguards, these may have a reflex action on the United States, otherwise it would seem that accidental deaths from carburetted water-gas poisoning will continue to figure, on our mortality returns until the people are sufficiently educated in the use of this illuminant to understand and avoid its dangers.

ACCLIMATIZATION IN THE TROPICS.

The *Indian Medical Record* does not believe in the acclimatization of the white race in the tropics. It holds that the lowered death-rate in hot countries is not an evidence to the contrary, but rather, that it shows it is only after elaborate precautions have been learned, that it exists. It is rather a proof of the inability of the white race to colonize, that is to labor and undergo constant exposure in the tropics. It is absurd to say, it claims, that a reduced death-rate directly due to the careful avoidance of every possible exposure is an evidence that such exposure can be endured.

CANCER AND VACCINATION.

The cancer question which is now so prominently to the fore is being utilized by the antivaccinationists. One of their leading agitators, in a recent interview as reported, is said to have attributed the increase of cancer of late years to vaccination. He had known of hundreds of cases of cancer in his own practice and that of brother practitioners in the United States, but had "never seen a case of cancer in an unvaccinated person." It is scarcely necessary to say that it would be hard for him to prove the above statement or to show that he had ever investigated the facts as to vaccination in all the cases of cancer he had seen in the practice of his brother physicians. The interview illustrates the line of argument chosen by the antivaccinationists, that they seize upon anything that they can utilize for their purpose without regard to the verities. If any disorder is on the increase, vaccination is at once held responsible, no matter whether there is any proof to that effect or not. It is easy to make reckless statements to a lay reporter, but it does not show any very high grade of morality to give out for publication as facts what can not be demonstrated as such.

AN X-RAY DANGER.

In the *Practitioner* for May, EDMUND OWEN, F. R. C. S., reports a case of the fracture of the femur in which, in spite of the utmost care and treatment, a bad union occurred, as shown by the X-ray, and asks what would be the result had some officious friend had the picture taken and then instituted a suit for malpractice. Would not an eloquent barrister, with the evidence of the photograph exhibiting "the thigh bone and its treatment in all their nakedness, as it were, to a sympathetic jury," have been able to make serious trouble for the surgeon? As the writer says, the public are taking more than a mere idly curious interest in this new illumination of dark places, and the sooner the surgeons realize this fact the better. Although every possible precaution is taken and every resource known to medical science is employed, it can not always be assured that unfortunate results will not occur. The X-ray in these cases, if admitted by the court as evidence, may put an inconvenient advantage into the hands of the litigious claimants for surgical damages. This fact is one that deserves some attention at least, and Dr. OWEN'S warning is a timely one. Especially should surgeons exercise caution in expressing opinions in regard to X-ray revelations referred to them by the laity when, from the appearances alone, an unfavorable judgment might be given. The possibility of any case of fracture, however skilfully managed, turning out only a partial success, or a failure as regards normal union of the bone, should be always kept in mind in these cases.

THE ARMY MEDICAL SERVICE.

Philadelphia delegates to the AMERICAN MEDICAL ASSOCIATION have taken the initiative step in the correction of the system of appointment in the army of the United States as now in vogue. While the surgeon-general has done all that could be done under the circumstances, yet the present system of appointment of surgeons seriously impairs the usefulness of this department. Instead of the surgeon-general being possessed with plenary power in the determination of the fitness of the candidate for the position as surgeon, and in being free to choose as he may wish according to the required examination, it is believed that an iniquitous system prevails in which politics plays no small part, to the detriment of the soldiers in the army and to the disparagement of the medical profession in general. To the end that the abuse may be speedily corrected a committee of representative physicians has been chosen and empowered to present this question before the next meeting of the AMERICAN MEDICAL ASSOCIATION. The opinion is prevalent that the powers of the surgeon-general in the future should be further extended so that this department will not be overshadowed by the secretary of war.

MORE "CHRISTIAN SCIENCE" MANSLAUGHTER.

The privilege of "Christian Science" and the faith healer to commit passive manslaughter—to call it by no worse name—for profit is likely, according to present prospects, to have a legal test in New York. Two women of that persuasion are under arrest, according to the press dispatches, for causing death or serious injury by neglect. In one case a patient died without medical care under the "Christian Scientist" ministrations, and in the other case of neglect of a gangrenous toe, which was to be cured by the faith healer for a fee, amputation had later to be performed, but it was feared too late to save life. The 'Christian Scientists," it is said, are up in arms against this deprivation of the "religious liberty" that permits them to cause preventable deaths. It is a strange, though unfortunately a familiar, fact, that apparent culture and all the social and other opportunities that wealth affords can not always insure against the fanatic adoption of and adherence to the most irrational delusions. Whether a little legal discipline in these cases is taken as martyrdom or not it would seem to be necessary in the interest of the public welfare. The growth of the "Christian Science" cult is one thing, its immoral sacrifice of human life is another, and the latter should be stopped. The taking of human life under the pretense of religion is as, or more, respectable under the name of "thuggery" as under that of "Christian Science." (See p. 1135.)

TRANSMISSION OF YELLOW FEVER THROUGH MOSQUITOES.

There exists considerable evidence that a number of diseases may be transmitted through the intermediation of insects, viz., filaria sanguinis hominis and malaria through mosquitoes, typhoid fever and cholera through flies, and tuberculosis through bedbugs, and not unreasonably this mode of conveyance will be found to be operative with relation to other infectious diseases. STAPLER (*Wiener Med. Woch.*, April 22, p. 802) reaffirms the view previously expressed that yellow fever is probably transmitted, among other ways, through the intermediation of mosquitoes and flies, and he dwells on the relation between the greater liability to infection with both malaria and yellow fever after dark amid conditions of moisture and vegetable decomposition. Both diseases prevail, especially where mosquitoes are numerous, and these manifest their activity especially under the conditions named. Those who have been long exposed to their influence acquire a certain amount of resistance to both their stings and infection with malaria or yellow fever, while, as is well known, newcomers are more commonly attacked and in severer degree. It is not contended that, even when mosquitoes play a part in the conveyance of infectious diseases, they are alone the medium of communication; and what applies to these insects applies in all probability to others, so that research in this direction promises to yield most important results. It is easily comprehended that infection will more readily take place through a wounded surface than through an intact one, and in this way the activity of biting or stinging insects in the etiology of disease may be accentuated.

BEARING FALSE WITNESS.

The American Humane Association of antivivisectors has issued a pamphlet on human vivisection, according to a lay editorial, which gives what are claimed as some of its statements. Among these are such as the following: "In one of the leading eastern college hospitals a physician experimented on eight insane patients with preparations of the thyroid gland. The experimenter stated by way of explanation that when this administration is pushed even to a moderate degree, death is almost invariably the result. The patients had passed the period of time in which recovery from their own ailments could be expected, and of course the gentle physician thought it could do no harm to hasten their departure from this vale of tears and add a little agony for his own amusement." The falsity of the above is appreciated best when we review the facts of the case. Of the eight patients submitted to thyroid treatment by Dr. Berkley, to whom the above quotation evidently alludes, only one died, and in that case the treatment was stopped as soon as it was evident or apparent that its continuance was dangerous, and it is by no means certain that it was responsible for the fatal ending. Of the others, one made a good recovery, and another was improved; the others probably followed the course they would have taken after any other method of treatment, or even no treatment at all. We have not taken the trouble to investigate or identify the other cases referred to by the humane society's pamphlet, but doubt not they would be found equally misrepresented. The legal maxim, *falsus in uno, falsus in omnibus*, suggests itself as the most natural reflection

when considering the above facts and reading the remainder of the accusation made by the *soi disant* philanthropists who compiled the pamphlet in question. Can not the humane society reform its morals a little—at least pay a little more attention to the ninth commandment?

PLASTIC SURGERY OF THE NOSE.

The vitality of the tegumentary and cartilaginous tissues is well illustrated by a case reported by Dr. ABBOTT-ANDERSON in the *Lancet* of March 11, supplemented by an additional report and illustration in the issue of April 29. A man aged 30 was engaged in sharpening a knife when it slipped and in some way managed to slice off a piece of the nose, 1¼ inches in length, from above downward. The victim went first to the druggist who in turn sent him to Dr. ANDERSON. There he waited fifteen minutes before seeing the doctor who, on recognizing the state of affairs, asked for the severed piece. This not being at hand, a boy was sent for it and returned with it in ten minutes. It had been found on the kitchen table by the second cook who took it for a piece of calf head or pig's ear. During the boy's absence, the raw surface was carefully bathed with an antiseptic solution and, on his return with the missing piece, it was thoroughly washed in a warm saturated solution of boric acid and then fixed in place with twelve silk sutures. For four hours thereafter a fresh hot compress of boric lint wrung out in boric solution was applied every five minutes, and to this the operator attributes his success. Lastly, it was carefully dusted with europhen and done up in: 1, a piece of green protective; 2, wet boric lint wrung out in boric solution; 3, dry boric lint; 4, double cyanid wool; 5, gonorrhea bag to act as muff; and 6, bandage. The wound healed by first intention all round. The sutures were removed the fourth day, and the picture published in the *Lancet* of April 29 shows no deformity whatever. The case is interesting as showing that a piece of severed tissue left neglected and thoroughly blanched could at once resume its vitality and function after thirty-five minutes' separation. Such cases of successful minor surgery of this nature are well worth reporting.

MYOSITIS OSSIFICANS PROGRESSIVA.

NICOLAYSEN (*Norsk Magasin for Lægevidenskaben*, April, 1899) describes a new case of this mysterious condition. It concerns a 4½-year-old girl whose family history does not contain any especially noteworthy features. During the first two years of life she seemed to develop normally, but at the end of this time she gradually grew stiff in the right shoulder and the back, so as to become quite helpless. This condition came on without any recognizable cause, such as trauma or infectious disease. When examined, the peculiar stiffness and helplessness were found to be due to a complete ossification of the muscles of the back, nucha and shoulders, the scapulæ being fixed to the thorax; there were hard linear masses in the muscles of the right arm and forearm. Both thumbs and both big toes were well formed but abnormally small. In 1897 BOKS (*Berlin. Klin. Woch.*, 1897, p. 885) collected 39 cases of this disease; the present case brings the total up to 42; the striking characteristic is a progressive, true ossification of the voluntary muscles, the involuntary being apparently immune. Ordinarily the process begins with an edematous swelling of the muscles involved, succeeded by induration and contraction, and then the ossification gradually takes place. Genuine bone is formed, as shown by the examination of extirpated pieces. The exact tissue in which the process begins is perhaps not definitely determined, but most authors think it is the intermuscular fibrous tissue. It appears that 47.6 per cent. of the cases present symmetric microdactyli of either the big toe or the thumbs or, as in NICOLAYSEN'S case, on both hands and feet. Other toes or fingers do not seem to have been hypoplastic. The association of this hypoplasia with ossification renders the disease a singular one indeed. The disease nearly always begins before the tenth year and usually in the dorsal muscles first, is exquisitely chronic and slowly progressive, painless, without direct disturbances of the general health. Of 42 cases there were 11 females and 31 males, and the most reasonable theory as to the cause is that it depends on some kind of congenital predisposition. All treatment seems useless.

Medical News.

WE ARE glad to be able to record that Prof. Austin Flint, whose illness we announced last week, is convalescent.

Dr. DAVID STREET has been re-elected dean of the Baltimore Medical College for the thirteenth successive year.

Dr. DUNCAN MCCOLMAN has been appointed assistant dean and superintendent of the Maryland General Hospital, Baltimore.

A CLIPPING states that Professor Koch has gone to the tropics to investigate mosquitoes, but that is a game at which two may play.

PROF. WALTER S. HAINES, M.D., of Chicago, is editing the forthcoming "American Text-Book of Medical Jurisprudence and Toxicology," to be issued by Saunders.

OWING TO lack of financial support from the city, the members of the board of health of Carlisle, Pa., have tendered their resignation. The board has been in existence since 1894.

JOHN B. ROACH and Elleline Roach, children of John Roach, the shipbuilder, have recently presented an ambulance and horse to the Chester, Pa., Hospital, in memory of their father.

ON MAY 10, Governor Roosevelt signed the bill recently passed by the Legislature of New York appropriating $300,000 for continuing the acquisition of land for the forest preserve in the Adirondack Mountains.

THE forty-seventh annual commencement of the Woman's Medical College of Philadelphia was held May 19. The annual address was delivered by Dr.

William Parrish. One of the graduates is from Russia.

DR. FREDERICK L. BENTON of Brooklyn, formerly house surgeon of the Brooklyn Hospital, has just been designated by Admiral Dewey as surgeon in charge of the building of the new naval hospital at Cavite, Manila.

DR. W M PERKINS has been appointed assistant demonstrator in the laboratory of operative surgery, medical department, Tulane University of Louisiana, to succeed Dr. T. F. Richardson, now of the marine-hospital service.

DR. HENRY B. STEHMAN, superintendent of the Presbyterian Hospital, Chicago, is recuperating in and about Denver after a serious attack of pleurisy. The Doctor will visit the Yellowstone National Park before his return to duty.

DR. JOHN B. DEAVER recently tendered to members of the society which bears his name a reception at his residence in Philadelphia. The Deaver Surgical Society is composed of undergraduates of the University of Pennsylvania.

THE AUTHORITIES of the University of Pennsylvania have given opportunity to applicants from all institutions, in the choice of appointment of the successor of Dr. J. B. Deaver, who recently resigned the chair of applied anatomy.

AUGUSTA E. DAVIS, Edward L. Bender, and Charles Peneveyre, have each bequeathed the sum of $5,000 to the Hospital of the Protestant Episcopal Church of Philadelphia, for the endowment of free beds in memory of deceased relatives.

AT THE annual meeting of the State board of health, held in Albany, N. Y., May 11, Dr. Daniel Lewis of New York was re-elected president and Drs. F. W. Smith of Syracuse and S. Case Jones of Rochester were re-elected tuberculosis commissioners.

WHILE riding a bicycle in Philadelphia last week, Dr. J. William White had the misfortune to be thrown to the ground, sustaining a dislocation of the clavicle. The accident, however, was not serious enough to prevent him from attending to his regular duties.

DR. HENRY M. WEEKS of Trenton, N. J., has been appointed superintendent of the New Jersey State Village of Epileptics. Dr. Weeks has formerly held the positions of assistant physician and pathologist of the State Hospital for the Insane, near Trenton.

THE NEW home for the poor suffering from cancer, founded by Mrs. Rose Hawthorne Lathrop, the daughter of Nathaniel Hawthorne, has just been opened on Cherry Street, New York City. The building is to be known as St. Rose's Free Home for Incurable Cancer.

THE seventy-fourth annual commencement of the Jefferson Medical College was held in Philadelphia on May 17. The valedictory address was made by Judge Mayer Sulzberger, and the degrees were conferred by President William Potter. Eighty-five received the degree of M.D.

A CASE of elephantiasis of the lower extremity is at St. Vincent's Hospital, Norfolk, Va., the subject of much curiosity and study by the local profession. The case is of twelve years' duration, and the extremity, at its largest circumference, will measure nearly three and a half feet.

AS A result of a conference held in Philadelphia relative to a rearrangement of salaries in the health bureau of that city, it was decided to recommend the following salaries for the positions named: Chief of Bureau, $4,000; physician to the Municipal Hospital to be increased from $2,000 to $2,500.

COL. DAVID B. GILLIARD, U. S. Engineers, has been directed by the war department to restore the Lydecker tunnel and the abandoned reservoir, in order to increase the water-supply of Washington, D. C. This is destined to relieve the water famine and supply an abundance of potable water to the eastern section.

SURGEON-GENERAL STERNBERG has appointed Lieut. Col. Benj. F. Pope (deputy surgeon-general), Maj. Wm. B. Davis (surgeon) and Capt. Merritte W. Ireland (asst.-surgeon) to represent the medical department of the U. S. army at the annual meeting of the AMERICAN MEDICAL ASSOCIATION at Columbus.

THE ration issued to the troops in the field near Manila during the recent military operations has consisted of fresh beef seven and bacon two days in ten, and salmon one day in ten with potatoes, onions, tomatoes and dried fruits daily. The fresh beef issues are reported by medical officers as of excellent quality.

REPORTS from medical officers serving in Cuba state that the light-weight flannel shirt now supplied to the troops is an excellent garment for the climate. A gingham or chambray overshirt is also furnished. The quartermaster's department has an ample supply of light summer clothing on hand for issue in all the Cuban departments.

OUR European exchanges mention the silver wedding celebrations of the Dr. Duke Charles Theodore of Bavaria and his wife, the Princess Marie of Braganza. This titled confrère is a specialist in ophthalmology at Munich, and maintains a free clinic for the poor, dispensing charity among his needy patients with a lavish hand.

THE FACULTY of Jenner Medical College, Chicago, has decided to ratify the recent action of the board of directors in expressing to the State board of health a desire to waive the exemption from State examination of the Jenner graduates. It was also decided to become a member of the Association of American Medical Colleges.

THE *Jour. de Méd. de Paris*, April 23, says that a young woman of Frankenthal, Hesse, was accused of infanticide, the infant supposed to have been thrown into the Rhine. The authorities sent word to the towns below along the river to search for the body of an infant. Each complied and thirty-two infant cadavers were the result of the search.

THE PROFESSOR extraordinary of hygiene at Marburg, Dr. Wernicke, has been appointed superintendent of the new Institute of Hygiene at Posen. H. Bonhoff, privat-docent at Berlin, has been called in his place to Marburg, which is the only Prussian university with two professors of hygiene. Professor Behring is the regular incumbent, and the second chair was created to relieve him and support him in his scientific studies.

RECENT FACULTY appointments in the Baltimore Medical College are: Chas. O'Donovan, clinical professor of diseases of children; E. L. Whitney, associate professor of physiology and chemistry; Chas. G. Porter, associate professor of bacteriology and pathology; C. M. Rowland, associate professor of anatomy.

A COMPANY of New England physicians is being organized for an excursion to Paris next year. It is the plan to charter a steamer and go to Holland, and from there to Brussels and Antwerp, then to Paris, and over to London and home, attending the International Congress and Exhibition, and returning in seven weeks. Dr. E. R. Campbell, Bellows Falls, Vt., is the secretary.

AT A meeting of the State board of charities held in New York on May 11, a sub-committee was appointed to prepare an address directing all managers of dispensaries in the State to give hearings for the purpose of obtaining opinions in regard to the question of suitable rules for these institutions, which, by the law recently enacted, have been placed under the control of the board.

DR. A. H. WITMORE is acting superintendent of the government hospital for the insane, Washington, D.C., pending the selection of a successor to the late Dr. Godding. Dr. Witmore has been first assistant at the hospital for many years, is thoroughly conversant with the details of the institution, and his appointment as superintendent is generally conceded and desired by the local profession.

AT THE recent meeting of the Maryland Public Health Association (see p. 1117) the following officers were elected: president, Chas. R. Hartshorn; vice-presidents, Howard Bratton of Elkton, J. W. Cheney of Dunkirk, John F. Hancock, Mrs. Daniel Miller and Miss Eliza Ridgley of Baltimore; secretary, John S. Fulton of Baltimore; assistant secretary S. J. Fort of Baltimore; treasurer, L. G. Smart of Baltimore.

THE FRENCH authorities are beginning to be disquieted at the decline in the number of students from abroad enrolled in the French medical schools. In 1895 there were 1137 foreigners to 7779 French students, while in 1899 there are only 840 to 7429 French. Of this number over half are in Paris. The majority, 630, are from Russia and the southeastern countries of Europe. The United States has been represented only by 14 in 1896, 10 in 1897, 6 in 1898, and 1 in 1899.

ACCORDING to reports, Dr. Wm. E. Quine has resigned as dean of the faculty of the College of Physicians and Surgeons, Chicago. His resignation has not been accepted.

DR. WM. HALE MCENROE, New York City, who has just been offered the professorship of materia medica in Cornell Medical College, died of heart disease, May 17, aged 46 years. He is credited with having originated the free dispensary in connection with Bellevue Hospital.

A YOUNG man, who had never taken mercury in any form, recently died of severe hydrargyrosis in a Vienna hospital, caused by the presence in the same ward of several patients undergoing Welander's "pillow-slip" mercurial treatment. He was in an advanced stage of tuberculosis with ulcerations in the mouth, anemic and cachectic, and although removed to another ward at the first indications of disturbance, sufficient mercury was found in the urine to account for the fatal result in his enfeebled condition.

THE Cook County (Ill.) Commissioners have adopted a suggestion of President Irwin that in future, when expert testimony is needed, physicians of the county hospital staff, Chicago, shall be required to give it free upon written request of the State attorney or the coroner. The new rule is expected to result in a big saving. In the last four years $10,600 was expended for expert testimony. A condition of the appointment of all physicians and surgeons on the hospital staff will be that they serve as expert witnesses. This is "political" economy.

BY THE will of the late Benj. F. Horwitz, Baltimore, a son-in-law of Prof. S. D. Gross, $5000 is left to the Johns Hopkins Hospital, to provide a medal for bestowal on such member of the medical profession either in this country or abroad, as shall have accomplished most in each year to ameliorate the sufferings of mankind. The money is to be invested and only the income used. The medal will be known as the Dr. Eugene Horwitz medal, in honor of the son of the testator, who was connected with the hospital, and who died about five years ago.

THROUGH the beneficent gift of Mr. Justus C. Strawbridge of Philadelphia, a bronze statue of Dr. Benjamin Franklin is to be erected in that city, the unveiling to occur June 14, the date of the commencement of the University of Pennsylvania, with which institution he was prominently identified during his life. From its foundation Franklin was always foremost in matters of health and numbered among his friends many physicians of his time who were instrumental in bring the medical profession to the high station which it now occupies. Secretary Day, Nikola Tesla and Thomas A. Edison will be invited to attend.

OWING to the death of Mrs. Celia Butler of Pittsburg, Pa., which has been ascribed to the effects of a headache powder, some interest has been manifested in the matter by Dr. Henry Leffman of Philadelphia, who attributes the bad effects to coal-tar products. That death occurred in this instance within twenty minutes from the time the medicine was taken is enough to bring the question prominently before the medical profession. The authorities of Allegheny County have as a consequence passed an ordinance providing that hereafter all powders used for this purpose and sold by druggists be properly labeled so as to state the dangerous quality of the drugs contained therein.

CHANGES IN staff of the Central College of Physicians and Surgeons, Indianapolis, Ind., have been announced as follows: Dr. Allison Maxwell has resigned as professor of the practice of medicine, and Dr. Samuel E. Earp has been elected to fill the vacancy, Dr. Maxwell being made associate professor. Dr. W. T. Newton has been elected to the chair of materia medica and therapeutics, formerly held by Dr. Earp. Dr. T. B. Eastman vacated the chair of anatomy to accept the chair of medical and surgical diseases of women, and Dr. T. E. Courtney was elected to the vacancy. A chair of bacteriology was also created and Dr. H. G. Gaylord elected to fill it, and Dr. R. N. Tond made assistant in pathology.

Association News.

General Business Committee. The first meeting of this committee will be held on Monday afternoon, June 6, at 5 o'clock, in the Columbia Rifles Armory, seventh floor of the Great Southern Hotel, Columbus, Ohio; subsequent meetings in the same place at 5 P.M. on each day of the meeting. It is very important that all the members of the committee should attend the meetings, in order that the business of the ASSOCIATION may be properly transacted. L. Duncan Bulkley, M.D., secretary General Business Committee.

Railroad Rates for the Columbus Meeting.—The committee on transportation of the AMERICAN MEDICAL ASSOCIATION presents the following, as the final rates agreed upon in the different territories for the Columbus meeting:

The New England Passenger Association, Trunk Lines Association, Southwestern Passenger Bureau and Southeastern Passenger Association grant a rate of one and one-third fare for the round trip on certificate plan.

The Central Passenger Association has granted a one-fare rate for the round trip. The Western Passenger Association has granted a one fare rate plus $2 for the round trip. In the latter territory, where the rate for passage to the eastern gateway is $6 or less, the rate will be one and one-third fare for the round trip, provided that where one-third fare to Chicago is $2 or less, 50 cents additional will be added to the cost for return transfer. (See JOURNAL, May 6, p. 1012.)

Tickets will be on sale in the various railroad territories on time, in advance, sufficient for reaching Columbus, the place of meeting, by continuous uninterrupted trip. Delegates should notify ticket agents in advance, in order to secure the certificate platform.

H. L. E. JOHNSON, M.D.,
Chairman Transportation Committee.

Section on Practice of Medicine.—The following is a list of the papers to be read in this Section at the Columbus meeting, with short abstracts.

JUNE 6—AFTERNOON SESSION.

1. Address of Chairman. Frank Billings, Chicago.

2. What are the Physiologic Processes or Functions that Impart to the Living Human Body Its Vital Resistance or Immunity to the Action of the Toxic Agents to Which It May be Exposed; and How Can That be Aided in the Treatment of Disease. N. S. Davis, Chicago.

Abs.—In discussing this subject the author touches briefly on: 1. The physiologic processes by which the living body maintains its vitality and metabolism in health. 2. How these natural processes are affected by the chief causes of disease, both acute and chronic. 3. The chief means by which the physician may effectually aid the natural processes in restoring health after disease or disorder has been produced.

3. A Comparison of the Various Methods of Estimating Hemoglobin. B. M. Linnell, Chicago.

Abs.—The author considers the color tests; Fleischl's; Gower's; the percentage of error; variation between different eyes; between the same eyes at different times and under different circumstances of the recognition of colors; also a method for approximate estimation by known dilutions of examiner's blood; the specific gravity method (Hammerschlag's), the most accurate; some modifications in the technic.

4. The Spread of Diseases in Schools and its Prevention. Lambert Ott, Philadelphia.

Abs.—*a*. Most children's diseases are obtained in the intercourse of school life. *b*. The diseases usually spread in school are diphtheria, scarlet fever, whooping cough, measles, varicella and variola or varioloid. *c*. Sources of danger. *d*. Means of contamination. *e*. Prevention of the spread of disease in schools. 1. Children convalescing from contagious disease should not be allowed to return to school until the lapse of a certain time. 2. Teachers should be taught to recognize the contagious diseases and by what means they are spread. 3. Children should be taught to avoid the medium of contagion. 4. In all cities there should be a medical superintendent of public schools and a trained corps of assistants to trace sources of contagion, etc. *f*. Smallpox, vaccination and the law of Pennsylvania relating thereto.

5. Cerebrospinal Meningitis. T. N. Miller, Rockford, Ill.

Abs.—This author presents the bacteriology, non-contagiousness, clinic types, diagnosis, prognosis and a treatment which has given more than ordinary successful results.

6. Some Unusual Features of Epidemic Cerebrospinal Meningitis. George L. Eyster, Rock Island, Ill.

Abs.—A clinic report of two cases of cerebrospinal meningitis of the markedly intermittent type, accompanied by mucopurulent discharge from the nasal cavities, in which were found large numbers of the diplococcus intracellularis meningitidis; description of post-mortem lesions.

7. Cirrhosis of the Liver. J. B. Marvin, Louisville.

8. Illuminating Gas Poison. W. B. Hill, Milwaukee.

9. Have we in Nature a Basis for a Science and Art in Medicine? H. J. Herrick, Cleveland.

Abs.—The writer believes there is a basis for the application of the terms science and art to medicine. The application of the laws and principles of physiologic science are regarded as offering the chief indications for the guidance of the physician in the treatment of all diseases.

10. Primary Testicular Mumps. Landon B. Edwards, Richmond, Va.

11. The Fundamental Principles of Etiology and Therapy. Elmer Lee, New York City.

Abs.—Co-ordination and health; discord and sickness; vital principles, sensibility, sensation, instinct, contraction; bodily chemistry; defection of fluids and tissues; irritation from without; inhibition of normal function from nervous disturbance and abnormal sensation; inadequate food and drink; ptomains from decomposition and fermentation; ferment in the blood; bio chemistry; elimination and emunctories; incomplete digestion; microbes, their incidental relationship to disease; waste matter, fluid, solid, gaseous; exercise, food, dress; water internally in health and sickness; drugs and serotherapy.

12. Hodgkin's Disease. S. E. Stewart, Topeka.

JUNE 7—MORNING SESSION.

13. The Vascular Changes in Bright's Disease. James Tyson, Philadelphia.

Abs.—The cardiovascular changes meant are cardiac hypertrophy and arterial sclerosis. These are briefly described. The rationale of their production: 1. The arterial sclerosis is primary and produces cardiac hypertrophy and renal contractions. 2. The renal disease is primary, when the cardiac hypertrophy in its initial stage is the result of an effort at compensation. Arterial sclerosis succeeds at a late stage and fortifies the hypertrophy.

14. Treatment of the Heart in Chronic Interstitial Nephritis. Arthur R. Elliott, Chicago.

Abs.—This is a review of the cardiovascular changes in granular kidney; these not duly considered in the routine treatment of the disease; relative importance of the cardiac and renal changes from a therapeutic standpoint; the heart tonics in interstitial nephritis, their use and abuse; importance of the vasodilators; value of the Schott treatment in the myocardial changes of Bright's disease.

15. A Cause and Differential Diagnosis of Accidental Heart Murmurs. George W. Webster, Chicago.

Abs.—Causes: Every theory or fact in physical diagnosis should be, not the violation, but the realization of a physical law; review of theories; arguments tending to show that no single theory accounts for all accidental murmurs; probability that all accidental murmurs are, like those of organic disease, due to the production of "fluid veins." This may be due to temporary dilatation of the pulmonary artery, relative insufficiency of the tricuspid or the mitral valves and possibly other causes. The diagnosis rests on: 1, the exclusion of organic disease as shown by *a*, absence of a history of antecedent casual disease, *b*, absence of the results of valvular defects as evidenced by hypertrophy and dilatation, or by damaged or broken compensation. 2. By *a*, history of such disease or conditions as acute intoxications, chorea, the anemias, etc., with which these murmurs are frequently associated; *b*, the characteristics of the murmur as shown by rhythm, point of maximum intensity, area of audibility, posture, exercise, etc.

16. The Transmission of Systolic Mitral Murmurs, with Special Reference to the Nature of the So called Anemic Murmurs. Horace B. Arnold, Boston.

Abs.—The question of the nature of the so-called functional murmurs has been many times discussed, but the diversity of opinion among the best authorities still leaves it among the unsettled problems. Any contribution to our knowledge, however small, is welcome. The discussion has turned chiefly on the point of maximum intensity of these murmurs—their distribution has not received the attention it deserves. We shall consider mitral systolic murmurs and their distribution: why

they are heard at the apex; their transmission to the left from the apex and from the left side of heart; their transmission to the back; systolic murmurs (mitral and others) over the "valvular" area; mitral murmurs in the second left interspace, and their distribution beyond this area; so called "anemic" murmurs in the second left interspace and their distribution beyond—similar to mitral; illustrative cases.

17. The Use of Quinin in Malarial Diseases. George Dock, Ann Arbor, Mich.

Abs.—The objects of the paper are to consider the question of dosage in the various forms of malarial disease, the methods of administration including the choice of preparation of quinin, with special reference to the intermittent administration of quinin in malaria; to consider the most promising method of prophylactic treatment with quinin; to point out the present status of the subject of malarial hemoglobinuria, and the proper position of quinin to such disease; to consider briefly the untoward results of the use of quinin and the means of avoiding them.

18. Hypodermic Use of Quinin in the Treatment of Malaria. G. A. Fackler, Cincinnati.

19. Syphilis of the Liver. Geo. L. Cole, Los Angeles.

Abs.—The author considers the pathology of specific diseases of the liver; the diagnosis and the probability of many cases being treated for ordinary cirrhosis of the liver. Also a report of three cases; all had ascites; one was tapped six times and the other two were tapped over thirty times each, followed by recovery.

20. Frequency of Subcrepitant Râles in Healthy Chests. Richard C. Cabot, Boston.

Abs.—The writer calls attention to a subcrepitant râle, heard best in the last half of a full inspiration. The râle does not disappear after repeated respiration. It is heard most frequently in the axillæ from the seventh to the ninth rib. It is found in adults oftener than children, in out-patients who presented no other signs of disease of lung or pleura. He will also discuss possible causes.

21. Traumatic Neuroses without Ligation. Sidney A. Lord, Boston.

22. The Superstitions, Theories and Treatment of both Extremes of the Century. Alonzo Garcelon, Lewiston, Me.

23. (Subject to be announced). Norman Bridge, Los Angeles.

24. Treatment of Aneurysms by Gelatin Injections. T. B. Futcher, Baltimore.

JUNE 7—AFTERNOON SESSION.

Symposium on Pneumonia.

25. A General Introductory Paper Covering the Field of Pneumonia Broadly. Edw. F. Wells, Chicago.

Abs. Dr. Wells will consider: Importance of the question; prevalence; causation; the pneumococcus and its effects; chill and fever; effects of the toxins on the nervous system, especially the vasomotor nerves; effects on the blood, including increase of fibrin and leucocytosis; effect on the urine; suddenness of cessation of symptoms; chief determining causes of death; prognosis; treatment, especially by venesection, saline injections, strychnia and digitalis.

26. The Pneumococcus. Gustav Fütterer, Chicago.

Abs.—The author sketches the history of the bacteriology of pneumonia, with the evidence on which the pneumococcus is recognized as the probable exciting cause of the disease; considering also the presence, constant or frequent, of the coccus in the mouth and upper air-passages, together with their identity and relations to the attack; the morphology of the germ; the toxins; the antitoxins, etc.; the mode of entrance and attack.

27. The Blood. Alfred Stengel, Philadelphia.

28. Pneumonia of the Aged. Robt. H. Babcock, Chicago.

Abs. This paper considers pneumonia of the aged more frequently lobar than catarrhal; its wide prevalence and great mortality; its symptomatology is often very unlike the typic form and may be said to constitute a type of its own. Description of symptoms. Diagnosis: Physical signs often obscure, and diagnosis may depend largely on history and symptoms. Prognosis: Gravity of and elements in. Treatment: Only touched on, necessity of avoiding depressing and of not sparing stimulating remedies.

29. Systemic Infection: The Complications and Sequelæ. Robt. B. Preble, Chicago.

Abs.—Complications. *a*, Mechanic: Plugging of bronchi: effects on symptoms and physical signs; dilatation of heart; jaundice; theories of causation. *b*, Infections: Septicemia; pleuritis; endocarditis; meningitis; pericarditis; arthritis; miscellaneous; mixed infections. *c*, Toxic: Delirium; renal changes. Sequelæ: Delayed resolutions; nephritis; induration; neuritis; abscess; gangrene.

30. Pneumonia of High Altitudes. Sherman G. Bonney, Denver.

31. The Treatment of Pneumonia. H. A. Hare, Philadelphia.

Abs.—Dr. Hare considers the treatment of croupous pneumonia in: 1, sthenic individuals; 2, asthenic individuals in the first stage, stage of convalescence, and stage of resolution.

Discussion upon the general subject of Pneumonia, by N. S. Davis, Jr., Chicago; J. G. Whittaker, Cincinnati; James Tyson, Philadelphia; J. H. Musser, Philadelphia; Norman Bridge, Los Angeles; Charles G. Stockton, Buffalo; A. M. Holmes, Denver; George Dock, Ann Arbor; R. C. Cabot, Boston; J. M. Anders, Philadelphia; H. B. Favill, Chicago.

32. Autointoxication, Autoinfection. J. M.G. Carter, Waukegan, Ill.

Abs.—This author considers: Frequency of occurrence and that many cases of so-called simple continued fever belong here, and various diseases easily supervene; headaches, neuralgias, poisoning; metabolism disturbed and elimination checked. Rational treatment: Elimination and oxidation—the use of oxygen gas.

33. A Further Report on the Cataphoric Treatment of Cancer. G. Betton Massey, Philadelphia.

Abs.—The cataphoric insertion of nascent salts of mercury in a strength that will deluge interstitially a given tract of tissue or an organ, constitutes a therapeutic procedure of this author. Besides its application in massive dose, generally in association with nascent zinc salts, in the interstitial destruction of the malignant cells or germs of cancer and sarcoma, the method is applicable to the treatment of tuberculosis of accessible portions of the body and to many other conditions where an interstitially-driven germicide will be effective; all ulcerations, cysts, cavities and morbid structures being rendered permanently aseptic by the diffused materials, until perfect healing has been secured. Tissues subjected to the application, whether a small dose has been used or a massive one under ether, show the development of two distinct zones, that nearest the electrode being a zone of total necrosis, around which a line of demarcation subsequently forms, beyond which appears a zone of infiltration-reaction, which shows much puffiness and redness for days subsequently, and within which there is evidence that stray malignant cells are killed and the physiologic resisting forces of the body roused. Details are given of cases of sarcoma and carcinoma, ten in all, that have been successfully treated by the method.

34. A Fallacy of the Rest Cure Treatment. G. M. Gould, Philadelphia.

Abs.—The writer describes three cases which he has treated and in which the general physician or neurologist had ordered the rest-cure without any inquiry as to the existence of eye-strain. A potent and frequent cause of the neurasthenia, hysteria, denutrition, etc., of patients needing the rest cure, is eye-strain, the symptoms of which are frequently not traced to the true cause and which is thus ignored in the treatment. Mydriasis in such cases, continued for a time, would not only prove a certain means of differential diagnosis, but as good a method of cure as the rest cure itself.

35. The Medical Treatment of Movable Kidney. Alfred Stengel, Philadelphia.

36. Acute Endocarditis. W. H. Nielson, Milwaukee.

Abs.—This author takes up: 1. Etiology, chemic and biologic. 2. The necessity existing for carefully and frequently examining all cases of acute infectious disease with special reference to endocarditis. 3. Symptoms, especially the general symptoms. 4. Treatment; general considerations.

JUNE 8—MORNING SESSION.

37. Notes on Two Epidemics of Typhoid Fever in the Iowa Hospital for the Insane. George Boody, Independence, Iowa.

Abs.—This paper embodies the author's views on the general course of epidemics; value of the microscope in differential diagnosis; report of a case of inverted fever; observations as to the effect on subsequent mental condition of patients.

38. The Typhoid Fever Fallacy. Frank W. Porterfield, Atlantic, Iowa.

Abs. The position will be taken that no line of treatment for typhoid fever can rationally and scientifically be endorsed by the profession to the exclusion of others, with a brief review of the present state of knowledge of the pathology of the disease; frequent occurrence of atypic cases; the difficulty of intestinal antisepsis; the admitted value of skilled nursing and correct supervision of diet; the value of rest and sleep, and the consequent source of danger in the administration of medicine in fractional hour intervals; the very wide difference between

hospital and private cases; the topic from the standpoint of the general practitioner on a common-sense basis.

39. A Quarter of a Century's Experience with Typhoid Fever, with Special Reference to Some Unsettled Problems. Jas. L. Taylor, Wheelersburg, Ohio.

Abs.—The author presents a contrast between accredited scientific opinions concerning typhoid fever as advocated formerly, and those generally received to-day; how typhoid has displaced marsh fevers; different epidemics characterized by different types of the disease; the varying forms of typhoid; can the radically different types assumed in different epidemics depend on identic causes? Points of similarity between epidemics of typhoid and those of cerebrospinal meningitis; greater severity of former typhoid epidemics; propagation of certain typhoid epidemics sometimes toward the source of streams instead of toward their mouth; in farming districts typhoid spreads without any possible dependence on water-supply; rôle of Eberth's bacillus some confusing effects of bacteriologic research; practical value of Widal's and other tests; an anomalous form of typhoid occurring since the influenza visitation of 1889; what points are of most value in determining prognosis.

40. A New Bath Facilitating Hydrotherapy in Private Practice. Alfred C. Haven, Lake Forest, Ill.

Abs.—The author gives a brief history of use of water in medicine; prejudice against water, and reasons; physiologic effects of water, hot and cold; therapy—all hyperpyrexia; contraindications; technic simplified, and will exhibit new portable bath.

41. Enteric Fever: Its Infection, Pathology and Present Treatment. Franklin Staples, Winona, Minn.

Abs.—This is a paper designed to show something of the part which the science of bacteriology has had in recent advances of knowledge concerning infectious diseases. The brief account here given concerns especially the common disease known as enteric or typhoid fever. This disease is presented as representative in practical ways of others of this general class. The gradual advance of knowledge in former times and the more rapid progress in the near past have alike tended to the establishment of pathologic anatomy as the basis for what pertains to hygienic and therapeutic management. The later rapid progress in the domain of practical medicine is seen to be largely due to what is coming to be known concerning the specific germ as the necessary cause of disease and the essential element in its pathology. The practical advantage gained from a knowledge concerning cause and condition in preventable disease, is found in the resulting direction for successful prevention of what is liable to be, as well as for the better management of what is at hand—a knowledge of ways, and a possession of means.

42. Some Remarks on Typhoid Fever in the American Army During the Late War. V. C. Vaughan, Ann Arbor, Mich.

Abs.—This will consist of remarks on the prevalence of typhoid fever among the troops in the different camps, on the causes of the typhoid fever, the rapidity of its spread and the avenues by means of which it was spread. In the paper one or more regiments will be taken up and somewhat of a critic study made of the sickness in such regiments.

43. Spontaneous Dislocation of the Hip-Joint Complicating Typhoid Fever; with a Skiagraph of Case. A. H. Burr, Chicago.

44. On Therapeutic Principles in Treatment of Typhoid. L. F. Roush, New Haven, W. Va.

Abs.—The author considers: 1. Cathartic, calomel preferred, daily for first six or eight days, to change character of stool; repeat cathartic any time in course of disease for diarrhea. 2. Salicylate of ammonium or sodium, grs. v, more or less, night and day during the whole disease or as long as evening temperature is 102 F. or more. 3. No food for first week unless patient desires it. 4. The foregoing plan, with proper hygiene, will not only mitigate, but will greatly abridge the duration of the disease.

45. The Care of Continued Fever Patients. S. C. James, Kansas City.

Abs.—The author will attempt to show some of the common errors of: dieting; nursing; medication and general hygiene.

46. A Plea for the Antiseptic Treatment of Typhoid Fever. D. C. Ramsey, Mount Vernon, Ind.

47. The Use of Acetanilid in Typhoid Fever. E. C. Brush, Zanesville, Ohio.

Abs.—The cases reported are those of soldiers sent home last August and September from Camp Geo. H. Thomas, Chickamauga, Ga. They were treated in the Zanesville hospital. The only antipyretic used was acetanilid. The rule in using acetanilid was to give three grains every two hours when the temperature reached 101. As soon as the temperature fell below 101, the acetanilid was discontinued. Usually the patient would perspire and the temperature drop from one to two degrees after the second dose. A third consecutive dose was not needed often.

JUNE 8—AFTERNOON SESSION.

Symposium on Albuminuria.

48. A General Consideration of the Subject, including the Significance of Albuminuria. J. B. Herrick, Chicago.

Abs.—This paper is introductory to the general discussion of albuminuria. He considers the importance of the subject, and shows that while much has been learned since the time of Bright, many questions concerning albuminuria and its significance are yet unsettled. He also gives theories as to origin.

49. Physiologic, Cyclic, and the Albuminuria of Adolescence. R. O. Beard, Minneapolis.

50. Accidental or Spurious Albuminuria. Chas. G. Stockton, Buffalo.

51. Febrile Albuminuria. J. H. Musser, Philadelphia.

52. Albuminuria of Bright's Disease. Richard C. Cabot, Boston.

Abs.—Cabot's paper covers: 1. Nephritis without albuminuria. 2. Relation of albuminuria to different clinic types of nephritis. 3. Relation of albuminuria to dropsy. 4. Relation of albuminuria to renal permeability. 5. Relation of albuminuria to food and treatment.

53. The Influence of High Altitude upon Albuminuria. Edw. C. Hill, Denver.

54. The Quantitative and Qualitative Estimation of Albuminuria. C. W. Purdy, Chicago.

Abs.—The author considers: The gravimetric method (description of two different processes); Tanret's titration method with the double iodid of mercury and potassium with mercuric chlorid as the indicator; the time reaction of Brandberg; the differential-density method of Lang Hoebler and Bernhardt; Esbach's volumetric method; his own centrifugal method, giving both volumetric and gravimetric percentages with error not exceeding 0.02 of 1 per cent.

The Discussion on Albuminuria to follow Dr. Purdy's essay, by James Tyson, Phila.; Arthur R. Elliott, Chicago; W. H. Neilson, Milwaukee; V. C. Vaughan, Ann Arbor; H. B. Favill, Chicago; H. A. Hare, Phila.; S. C. James, Kansas City; Geo. L. Cole, Los Angeles.

55. Some of the Ways in which X-rays Assist in Medical Diagnosis. F. H. Williams, Boston.

Abs.—The points of this paper are: Apparatus used; vacuum tubes of Dr. William H. Rollins; simple precautions to avoid burns from X-rays; no burns at the Boston City Hospital in about three thousand examinations; best field for medical work; brief consideration of the uses of X-rays in diseases of thorax, abdomen, pelvis, head, general diseases and diseases of children.

56. The Treatment of the Abdominal Viscera through the Colon. Fenton B. Turck, Chicago.

Abs.—The author treats this subject as follows: 1. Anatomic, physiologic and pathologic relations of the colon to the other viscera. 2. Therapeutics: General consideration, direct effect of therapeutic measures, by proximity to other viscera, reflexes of the colon; *a*, cardiovascular; *b*, gastro-intestinal; *c*, hepatic; *d*, kidneys and other viscera; *e*, thermal centers. 2. Autointoxication and elimination. Methods: 1. Position of patient under treatment; description of new table. 2. Method of passing flexible sound and tube for diagnostic and therapeutic purposes. 3. Mechanic. 4. Hydrotherapeutic method; experimental and clinic observations. 5. Hot and cold air through double tube in colon; observations on same. 6. Electricity; new electrode with douche using soft double return tube. 7. Medication per colon. 8. Feeding per colon: indications and contraindications; results.

57. The Application of the Centrifuge to the Examination of Feces. C. D. Spivak, Denver.

58. The Changes and Diseases Peculiar to Old Age. J. W. Bell, Minneapolis.

Abs.—This paper has to do with: 1. The importance to the practitioner of a more thorough knowledge of senile pathology, as well as the normal changes peculiar to age. 2. The meagerness of the literature on the subject, as indicated by the absence of a single comprehensive treatise on the changes or diseases of advanced life. 3. Systematic instruction in the changes and diseases peculiar to age should form a part of the college curriculum. 4. This instruction is as necessary to fully equip the practitioner as is special instruction in diseases of childhood.

59. Rheumatism: Its Etiology, Pathology and Treatment. A. A. Young, Newark, N. Y.

Abs.—The writer endeavors to show: 1. That articular rheu-

matism is produced by the deposition, growth and reproduction of a specific micro-organism within the blood stream. The active stage of the disease marks the period of time during which the rheumatoid bacilli pass through their life cycle. 2. That rheumatism is a systemic and never a local affection and that the observed departure from normal conditions of the various organs, including the blood-stream, are the conditions produced by the developing bacilli; or they are nature's efforts to prevent their growth and to debar the fully developed bacilli from passing through another biologic cycle. 3. That in rheumatoid conditions there is an overproduction of uric acid; that a relation exists between its production and amount, as found in the system, and the growth and reproductive processes of the rheumatoid bacilli; in the same ratio that the former is eliminated the severity of the disease is diminished, and for this purpose the known physiologic actions of pilocarpin suggest its use, which indication has been verified in a short clinic experience.

JUNE 9—MORNING SESSION.

60. Cholecystitis. Chas. G. Stockton, Buffalo.

Abs.—The author attempts to answer: 1. In the etiology of cholecystitis, what rôle is played by biliary calculi, trauma, exposure to cold, and what by invasion of the gall bladder by pathogenic bacteria? 2. What relation does cholecystitis bear to angiocholitis, jaundice, enlargement of the liver and hepatic colic? 3. How far may the course of the disease and the prognosis be modified by treatment other than surgery?

61. Pancreatic Hemorrhage, with Report of Two Cases. J. M. Anders, Philadelphia.

Abs.—This paper will embrace a discussion of: 1. The causes of hemorrhage in the pancreas. 2. Its pathologic relations. One case reported in the paper occurred in carcinoma of the pancreas, the other in hemorrhagic pancreatitis, the latter also terminating fatally. 3. Pancreatic hemorrhage as an immediate cause of death from shock, or compression of the solar plexus. The notes of two cases in which death followed extensive hemorrhage in the course of a few hours are recited.

62. The Responsibility of the Physician in Vaccination. Julia W. Carpenter, Cincinnati.

Abs.—The subject of vaccination is of vital importance at the present moment for the following reasons: 1. The agitation on the subject of legislation concerning vaccination pro and con. 2. The recent epidemic of smallpox in our land. 3. The growing sentiment against vaccination and the industry with which these opponents are working. The author gives suggestions as to the best manner of vaccination, the best places to select and the best subsequent treatment, and considers the serious results following vaccination and how far the physician is responsible for the feeling against vaccination.

63. A Case of Lipemia in Diabetes Mellitus. T. B. Futcher, Baltimore.

64. The Relation of Drinking Water to Metabolism. David S. Edsall, Philadelphia.

65. The Value of the Tuberculin Test in the Diagnosis of Tuberculosis. Edward O. Otis, Boston.

Abs. This author considers: 1. Objections to the use; *a*, that it is dangerous by rendering more active existing disease in a more or less quiescent state; *b*, that it is unreliable by giving reactions in other diseases and by failing to react in some cases of tuberculosis. 2. The chief value in the diagnosis of early cases; importance of early diagnosis. 3. Experience and conclusions of other investigators—of the writer—in favor of the test. 4. The writer's cases reviewed and discussed. 5. Summary of conclusions. 6. Rules for use of the test.

66. Tuberculosis of the Lungs: History, Etiology, Cure (?) and Recent Therapeutic Measures Employed in Its Treatment. T. Snyder, Kingston, Ont.

67. A Further Report on the Use of Antiphthisic Serum (T. R.) in Tuberculosis (Fisch). A. Mansfield Holmes, Denver.

Abs.—This paper covers: 1. Physiologic effects of the serum. 2. Effects in various stages of the disease. 3. Necessity of an early diagnosis. 4. Its value as a prophylactic. 5. Permanency of effects. 6. Length of time necessary for treatment. 7. The fallacy of climate alone in the treatment of pulmonary tuberculosis.

68. Our Consumptives: Whom to Send and Where to Send Them. J. F. McConnell, Las Cruces, N. M.

Abs. The points considered in this paper are: 1. The great aid toward the arrest of the tubercular process which proper climatic treatment gives. 2. The criminality of delaying. 3. Why early (incipient) cases recover. 4. Why late cases should be kept at home. 5. Southern New Mexico—its climate. 6. Climatic data.

69. Some Statistics upon Serotherapy in Tuberculosis, with a Report of 106 Cases so Treated During 1898, Combined with Favorable Climate, Combined with Street Supervision of the Patient. C. P. Ambler, Asheville, N. C.

Abs.—In the treatment of pulmonary tuberculosis "strict hygienic supervision of the patient" occupies first place, "favorable climatic outdoor life" second, "while medication in point of preference occupies third place." After referring to the culture-product series and admitting that their direct use on the patient is not without some danger, and for this reason has been discarded, the paper takes up the clinic use of the serum products in tubercular diseases, and discusses: class of cases in which indicated; contraindication; advantages over other forms of medication; length of time to be administered; accidents following administration; serum used, etc., while the report of the 106 cases is to be presented in tabulated form, being distributed among the members.

70. Specific and General Treatment of Tuberculosis. Paul S. Paquin, Asheville, N. C.

JUNE 9—AFTERNOON SESSION.

71. The Prevention of Tuberculosis. J. M. Emmert, Atlantic, Iowa.

Abs.—Tuberculosis is infectious and contagious, therefore a preventable disease. Tubercule bacilli are thrown out with sputum, and this when dried and pulverized may contaminate the air and infect other individuals. To prevent infection all sputum should be burned. This can be done only by quarrantine. Every case should be reported and registered as soon as diagnosed. Hospitals supported by the State should be established. Tuberculosis in lower animals is the same as in man. Dairy cows should be under care of veterinarians and be subjected to the tuberculin test. All infected cattle should be killed. No infected person should be employed as cook, nurse or teacher for children. The great trunk lines carrying invalids across the continent to health resorts should be required to carry a hospital car for the accommodation of the sick and protection of the well.

72. Sputum Analysis and the Early Diagnosis of Pulmonary Tuberculosis. S. E. Solly, Colorado Springs.

Abs.—The writer, having been impressed with the frequency with which cases of pulmonary tuberculosis, coming under his observation in Colorado, have been allowed to drift into the advanced stages of the disease by neglect of an early diagnosis, has made a statistic inquiry into his last 100 first examinations of cases of phthisis. This inquiry especially shows the practical value of the microscopic examination of the sputum, and corroborates other points which were brought out in the course of a similar inquiry made by the writer in 1893. The conclusions are based on the facts demonstrated by the analysis of the combined 200 cases.

73. Climate vs. Therapeutics in the Treatment of Pulmonary Tuberculosis. Francis Crosson, Minneapolis.

Abs.—The paper considers: 1. Leading authorities unanimously favor climatic treatment of pulmonary tuberculosis over all other methods. 2. The southwestern section of the United States considered as a resort for tuberculosis. 3. Behavior of tubercular infection in that climate—rarely, almost never, attacks natives, either man or lower animal. 4. Nomadic life of a tent dweller the best in that climate for incipient tuberculosis. 5. The early diagnosis of tuberculosis, of the greatest importance for the benefit to be derived from climatic treatment, is directly proportioned to the time of beginning treatment.

74. Report of Cases of Tuberculosis Treated with Nitrogen Gas. A. F. Lempke, Chicago.

75. The Germ Theory and Serumtherapy Applied to the Practice of Medicine. A. T. Cuzner, Gilmore, Fla.

76. The Country Doctor as a Specialist. E. O. Bardwell, Emporium, Pa.

Abs.—The writer contends that every town of 5000 or more people should have a specialist devoting his entire attention to gynecology, another to diseases of the eye, ear, nose and throat, and that the general practitioner should support the local specialist by sending cases to him. At the same time the general practitioner should be better qualified than he now is to be able to recognize the need of a specialist.

77. Constipation. M. F. Lee, Columbus.

78. The Diagnosis and Treatment of Thoracic Effusions. Louis Faugéres Bishop, New York City.

Abs.—This subject is considered under the following heads: 1. Conditions under which fluid accumulates in the pleural cavities. 2. Its importance depending on the amount, its toleration by the patient, its quality. 3. The diagnosis of fluid, by physical signs, by the exploratory puncture. 4. A discussion of the methods, precautions, dangers and advantages of the exploratory puncture. 5. Paracentesis. 6. A discussion of the removal of fluid from the pleural cavities; best instru-

ments: general mode of procedure; precautions and dangers. 7. A brief recital of cases.

79. The Country Doctor. S. K. Crawford, Chicago.

Abs.—The author presents: 1. A plea for higher medical education. 2. An accomplished physician, a skilful surgeon. 3. Physical endurance, mental acumen. 4. A high grade citizen, a Christian gentleman. 5. Some mistakes of a twenty five years' experience.

80. Philosophy of Sickness. Thos. F. Harrington, Lowell, Mass.

81. From Saddlebags to Pocketbooks. B. T. Whitmore, New York City.

82. Influence of Mind in Disease. T. A. Borton, Plymouth, Ind.

Abs.—This paper has to do with: 1. Influence of mind on functions of body. 2. Its influence in producing pathologic conditions. 3. These conditions by reflex action producing morbid sensibility of the mind and that deranging nerve centers, resulting in a stop of nerve energy, which becomes a secondary pathologic condition in the form of different kinds of neurasthenia.

83. La Grippe. J. E. Gilcreest, Gainesville, Texas.

Section on Materia Medica, Pharmacy and Therapeutics.—The preliminary program of this section contains the following papers:

JUNE 6—AFTERNOON SESSION.

1. Non depressant Analgesics. John A. Cutter, New York City.

2. Paraldehyde as a Hypnotic and as an Antidote to Strychnin. C. C. Hersman, Pittsburg.

3. Some Thoughts on Urethral Therapy. T. A. Hopkins, St. Louis.

4. The Use of Acetanilid in Various Combinations as a Substitute for Many Proprietary Drugs and Mixtures. Louis F. Bishop, New York City.

5. The Proper Place for Proprietaries. J. E. Beery, Columbus.

Discussion of Papers Nos. 4 and 5 by Henry W. Rogers, S. R. Miller and Leon L. Solomon.

6. Materia Medica Up to Date. Frank C. Tinsley, Indianapolis.

7. Clinic Notes on Digitoxin. J. P. Sawyer, Cleveland.

8. The Therapeutics of Pneumonia. Frank G. Wheatley, N. Abington, Mass.

9. What are Antitoxins and How are They Related to Toxins? R. G. Eccles, Brooklyn.

10. Passiflora Incarnata. Herschel Fisher, Lebanon, Ohio.

JUNE 7—MORNING SESSION.

11. The Diagnostic Importance of the Tuberculin Test. C. Fisch, St. Louis.

12. The Pneumonia Antitoxic Serum. Jos. McFarland, Germantown, Pa.

13. The Certain Success of Antitoxin in the Cure of Hitherto Incurable Cases of Diphtheria—a Merited Rebuke to Those Who Consider Materia Medica and Therapeutics as not Entitled to Rank in Importance with the Other Branches of Our Profession. H. V. Severingen, Fort Wayne, Ind.

14. Progress in Serum Therapy. Geo. W. Cox, Chicago.

Discussion of Papers Nos. 12 and 13 by E. W. Mitchell, J. M. Anders, J. B. Marvin, W. R. Dalton, R. B. Gilbert and Geo. F. Butler.

15. The Training of Chronic Invalids. J. H. Kellogg, Battle Creek.

16. Old and New Remedies. J. A. Kimmell, Findlay, Ohio.

17. Hydrotherapy. S. K. Crawford, Chicago.

18. Therapeutics of Kola. C. C. Yarbrough, Detroit.

19. The Vegetable Neurotics. Geo. F. Butler, Chicago.

20. Modern Therapeutics. W. B. Hill, Milwaukee.

21. Some Uses of Pilocarpin. S. Harnsberger, Catlet, Va.

JUNE 7—AFTERNOON SESSION.

22. Address of the Chairman. Thos. H. Stucky, Louisville.

23. Intravenous Saline Infusion in Acute Suppression of the Urine following Operation; with Report of a Case. W. S. Bainbridge, New York City.

24. The Therapeutics of Echinacea Angustifolia. A. M. Wilson, Kansas City.

25. Diabetes Mellitus. J. M. Allen, Kansas City.

26. Codein and Its Salts. G. J. Lochboehler, Washington, D. C.

Discussion of papers Nos. 24 and 25 by G. W. Cox, E. M. Houghton, N. S. Davis, Jr., and Leon L. Solomon.

27. The Heart Tonics. E. M. Houghton, Detroit.

28. Succedaneum to Digitalis. W. R. I. Dalton, New York City.

29. The Value of Medicinal Agents when Aided by Climatic Influence. W. Curtis Bailey, Las Vegas, N. M.

30. Some Further Observations on the Therapeutics of Chlorid of Gold and Sodium. D. R. Brower, Chicago.

31. Magnesia Sulphate. J. C. Culberson, Cincinnati.

JUNE 8—MORNING SESSION.

32. The Medical Issues of the War. T. O. Summers, St. Louis.

33. The Scope of the United States Pharmacopeia. E. H. Long, Buffalo.

34. How Far Can the Pharmacopeia Represent the Needs and Attainments of Therapeutics. A. L. Benedict, Buffalo.

Discussion of Papers Nos. 32 and 33 by C. H. Wood, Wm. Bailey, R. C. Eccles, H. A. Hare, G. F. Butler and T. H. Stucky.

Discussion of the Pharmacopeia, a general convention for the revision of which will be held in the City of Washington, D. C., on the first Wednesday in May, 1900.

35. Pharmacy, the Handmaid of Medicine. Wm. J. Jackson, San Francisco.

36. Do Our Prescriptions Violate the Code? R. G. Eccles, Brooklyn.

37. The Work of the American Pharmaceutic Association in Relation to the Materia Medica of the Future. F. E. Stewart, New York City.

38. The Preparation and Administration of Pills, Tablets and Capsules. H. Finkelpearl, Pittsburg.

39. Synthetic Chemistry and its Relation to Modern Therapeutics. J. W. Wainwright, New York City.

40. The Hypodermatic Use of the Bromids; Report of Three Cases. J. R. Gilbert, Ranger, Tex.

41. The Condemnation of Proprietary and Quasi-Patent Remedies Used by the Profession. C. A. Robertson, Nashville.

42. Fraudulent Claims: The Remedy. C. C. Fite, New York City.

JUNE 8—AFTERNOON SESSION.

43. Therapy of the Nitrites. J. N. Upshur, Richmond, Va.

44. Rest: A Rational Therapeutic Agent in the Treatment of Dilatation of the Stomach. C. D. Spivak, Denver.

45. Antitetanic Serum. J. C. Pannenborg, Hammond, Ind.

46. The Sulphoacid Salts of the Aliphatic Creosote Esters and their Employment in Therapy. Heinrich Stern, New York City.

47. Therapy. Elmer Lee, New York City.

48. The Nomenclature of the X Rays. Heber Robarts, St. Louis.

49. The Credulity of the People as It Pertains to Medicine. T. B. Greenley, Meadow Lawn, Ky.

50. The Therapeutic Value of Evaporators in the Living-Room. L. J. Lautenbach, Philadelphia.

51. Best Methods of Administering Drugs. H. O. Dodge, Boulder, Col.

JUNE 9—MORNING SESSION.

52. Continental Views of Alcohol in Therapeutics. T. D. Crothers, Hartford, Conn.

53. The Control of Intestinal Fermentation. N. S. Davis, Jr., Chicago.

Discussion by Drs. A. M. Wilson, Wm. F. Waugh, T. H. Stucky, J. W. Wainright, J. M. Anders and J. M. Dunham.

54. Iodin: Its Compounds and Therapeutics. W. F. Barclay, Pittsburg.

55. The Comparative Values of the Iodids and Mercury in Treatment of Syphilis. Eugene Carson Hay, Hot Springs, Ark.

56. Amylum Iodatum: A Valuable Addition to Iodin Therapeutics. Leon L. Solomon, Louisville.

57. The Use of Stimulants in Acute Diseases. E. P. Hershey Denver.

58. (Title not yet named.) Geo. M. Warner, Louisville.

59. (Title not yet named.) E. A. Ruddiman, Nashville.

Section on Neurology and Medical Jurisprudence.—Program for the Columbus meeting.

FIRST DAY.

1. Address of the Chairman. Frederick Peterson, New York City.

2. Dual Action of the Brain and Double Consciousness. David Inglis, Detroit.

3. Hematology in Neurasthenia. Chas. H. Lodor, Chicago.

4. The Treatment of Some Forms of Nervousness. Henry Upson, Cleveland.

5. Relative Curability of Nervous Diseases and their Therapeutic Indications. John Punton, Kansas City.
6. The Dermatoses in Hysteria. Ludwig Bremer, St. Louis.
7. Report of a Case of Hysteric Erythema. Chas. W. Burr, Philadelphia.
8. Hysteria in Men. John H. W. Rhein, Philadelphia.
9. Hysteric Lethargy. G. W. McCaskey, Fort Wayne, Ind.
10. On the Medical Side of Criminal Morphomania. T. D. Crothers, Hartford.
11. A Rational Treatment of Chronic Morphinism. A. J. Pressey, Cleveland.

SECOND DAY.

The afternoon of the second day will be devoted to a symposium on Headache, in which members of other Sections are cordially invited to participate. Papers will be read as follows:

12. The Diagnostic Importance of Headaches. B. Sachs, New York City.
13. The Headache of Gastro-Intestinal Disorders. Frank Billings, Chicago.
14. Headache Due to Affections of the Eye. Samuel D. Risley, Philadelphia.
15. The Significance of Headache Associated with Disease of the Female Pelvic Organs. Augustin H. Goelet, New York City.
16. Migraine. Samuel J. Walker, Chicago.
17. The Relation of Uric Acid to Migraine. John A. Lichty, Clifton Springs, N. Y.
18. The Mental Element in the Treatment of Headache. Philip Zenner, Cincinnati.
19. The Non-Medicinal Treatment of Headache. Curran Pope, Louisville.

Discussion to be opened by Jas. T. Whitaker of Cincinnati, Wharton Sinkler of Philadelphia, and Norman Bridge of Los Angeles.

THIRD DAY.

20. Neuropathic Multiple Arthritis. Archibald Church, Chicago.
21. Some Irregular Forms of Ataxia. Chas. K. Mills, Philadelphia.
22. Bulbar and Pontine Tabes. Harold N. Moyer, Chicago.
23. Family Diseases. Wharton Sinkler and F. Savary Pearce, Philadelphia.
24. Peroneal Type of Progressive Muscular Atrophy; Report of Two Cases. Theodore Diller, Pittsburg.
25. Report of a Case of Amyotrophic Lateral Sclerosis in which Degeneration was Traced from the Cerebral Cortex to the Muscles. William G. Spiller, Philadelphia.
26. A Case of Spinal Anterior Subacute General Paralysis. C. Eugene Riggs, St. Paul.
27. Acute Poliomyelitis in the Adult; With Report of Cases. Herm. H. Hoppe, Cincinnati.
28. Pachymeningitis Externa Cervicalis, Probably Tubercular; Recovery. F. W. Langdon and Albert H. Freiberg, Cincinnati.
29. Recurrent, Alternating, Functional Hemiplegia Involving the Face, Associated with Cardiac Valvular Lesion. J. T. Eskridge, Denver.
30. Hemorrhage into the Pons Varolii. Augustus A. Eshner, Philadelphia.
31. The Physician as a Witness in Court. W. J. Herdman, Ann Arbor.

FOURTH DAY.

32. Some of the Aspects of Renal Inadequacy, from a Neurologic Standpoint. H. A. Tomlinson, St. Peter, Minn.
33. Some of the Nervous Phenomena of Uremia. J. H. McBride, Pasadena, Cal.
34. Injury to the Cranium as Related to Insanity; With Report of a Case. Eugene G. Carpenter, Columbus.
35. Probable Brain Tumor, with Recovery. W. A. Jones, Minneapolis.
36. Relief of Intracranial Pressure in Non-Traumatic Cases without Localizing Symptoms. William N. Bullard, Boston.
37. Unusual Phobias Affecting Several Members of a Family. Richard Dewey, Chicago.
38. Temperament and its Influences. A. E. Sterne, Indianapolis.
39. Gastric Analysis in Mental and Nervous Diseases. Samuel Bell, Newberry, Mich.
40. The Resposibility or Irresponsibility of the Paranoiac. Prof. Geo. H. Stevens, Lafayette College. William H. Harrison, Easton, Penn.
41. Tremors. Henry Waldo Coe, Portland, Ore.
42. Ocular Manifestations of Some Diseases of the Central Nervous System. A. R. Amos, Des Moines.
43. Acromegaly and African Sleeping Disease. S. K. Crawford, Chicago.

Section on State Medicine.—The program for this section for the Columbus meeting of the ASSOCIATION is as follows:

JUNE 6—2 P.M.

SYMPOSIUM ON DIPHTHERIA.

To be opened by Edwin Klebs, Chicago; H. M. Biggs, New York.

1. Influence of Antitoxin on Statistics. Edwin Rosenthal, Philadelphia.
2. Decrease in Mortality from Diphtheria. Wm. P. Munn, Denver.
3. Diagnosis of Infectious Diseases. W. K. Jaques, Chicago.

JUNE 7—10 A.M.

4. Smallpox in Ohio, C. O. Probst, Columbus.
5. Sanitary Control of Variola. S. L. Jepson, Wheeling, W. Va.
6. City Milk Routes and Their Relation to Infectious Diseases. Ernest Wende, Buffalo.
7. Formaldehyde Disinfection. W. K. Jaques, Chicago.

JUNE 7—2 P.M.

SYMPOSIUM ON TUBERCULOSIS.

To be opened by N. S. Davis of Chicago.

8. Work of the Service in Prevention of Tuberculosis. Walter Wyman, Washington, D. C.
9. Prevention of Tuberculosis. Homer M. Thomas, Chicago.
10. Bacteriology of Influenza. F. C. Wynekoop, Chicago.

JUNE 8—10 A.M.

11. Sanitary Lessons of the War. Geo. M. Sternberg, Washington, D. C.
12. Etiology of Scarlet Fever. W. J. Class, Chicago.
13. Cremation. R. M. Stone, Omaha.
14. Relation of Water-Supplies to Typhoid Fever. John W. Hill, C.E., Cincinnati.

JUNE 8—2 P.M.

SYMPOSIUM ON THE REGULATION OF MARRIAGE.

15. Legal Restriction of Marriage for the Prevention of Communicable Diseases. Albert H. Burr, Chicago.
16. Legal Restriction of Marriage for the Prevention of Pauperism, Crime and Mental Diseases. Daniel R. Brower, Chicago.
17 Legislative Problems of the Restriction of Marriage. Hon. Chas. W. Parker, Cleveland.
18. Restrictive Marriage Legislation from the Standpoint of the Wife, Mother and Home. Mrs. Alice Lee Moyne, Washington, D. C.
19. Can the State Suppress Genito-Urinary Diseases? Ferd. C. Valentine, New York City.

JUNE 9—10 A.M.

20. Defectives and Criminals. J. H. McCassy, Dayton, Ohio.
21. The Doctor in the Public Schools. John B. Gerber, Dunkirk, Ind.
22. The Village Physician. Samuel Knox Crawford, Chicago.

Rectal Specialists.—The program of the first meeting of rectal specialists at Columbus, Ohio, June 6-9, includes the following titles:

1. Importance of Giving Rectal Diseases Special Study. Jos. M. Mathews, Louisville.
2. Pruritus Ani. Jas. P. Tuttle, New York City.
3. Surgical Treatment of Non-Malignant Stricture of Rectum. Joseph B. Bacon, Chicago.
4. A Modification of Whitehead's Operation for Hemorrhoids. Samuel T. Earle, Jr., Baltimore.
5. The Proctoscope as a Factor in Diagnosis and Treatment of Simple Ulceration of Rectum. Leon Straus, St. Louis.
6. A Consideration of the Various Forms of Ulceration of the Rectum. Lewis H. Adler, Jr., Philadelphia.
7. Rectal Carcinoma—Excision and Subsequent Colotomy. B. Merrill Ricketts, Cincinnati.
7. Limitations of the Kraske Operation. Charles C. Allison, Omaha.
9. Act of Defecation. Thomas Charles Martin, Cleveland.
10. Constipation Considered from the Standpoint of the Proctologist. A. Bennett Cooke, Nashville.
11. Paper and Exhibition of New Instruments. S. G. Gant, Kansas City.
12. Rectal Adenomata. William M. Beach, Pittsburg.

Public Health.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the surgeon-general of the United States Marine-Hospital Service for the week ended May 8, 1899:

SMALLPOX—UNITED STATES.

Alabama: Mobile, May 5, 2 cases.
District of Columbia: Washington, May 11, no new cases.
Florida: Jacksonville, April 29 to May 6, seven cases.
Georgia: Savannah, May 9, 4 cases.
Illinois: Chicago, April 29 to May 6, 1 case.
Indiana: Evansville, April 29 to May 6, 9 cases.
Kansas: Emporia, May 6, 4 cases; Garnett, May 6, 1 case; Kansas City, May 8, 32 cases, 8 deaths.
Louisiana: New Orleans, April 29 to May 6, 5 cases; Shreveport, May 8, 1 case.
Maryland: Baltimore, April 29 to May 6, 2 cases.
Massachusetts: Boston, April 29 to May 6, 1 death.
Michigan: Benton Harbor, April 29, present; Kalamazoo Township, April 29, present.
Minnesota: St. Paul, April 29, 1 case.
Ohio: Cincinnati, April 28 to May 5, 15 cases, 1 death; Cleveland; April 29 to May 6, 16 cases.
Pennsylvania: Erie, May 2, 1 case; Johnstown, April 29 to May 6, 1 case; Steelton, April 22 to 29, 1 case.
Rhode Island: Providence, May 10, 1 case, seaman.
Tennessee: Nashville, April 28 to May 6, 1 case.
Texas; Galveston, April 12 to May 6, 12 cases; Laredo, April 15 to 22, 3 cases, and 1 death.
Virginia: Newport News, May 6 to 8, 2 cases: Norfolk, May 5 to 11, 20 cases; Portsmouth, May 5 to 11, 10 cases.
Washington: Spokane, May 6, 5 cases.
Wisconsin: Milwaukee, April 29 to May 6, 1 case.

SMALLPOX—FOREIGN.

Belgium: Antwerp, April 15 to 22, 4 cases, 1 death.
Brazil: Bahia, April 8 to 15, 2 cases, 1 death; Rio de Janeiro, March 24 to 31, 6 cases, 4 deaths.
China: Hongkong, March 25 to April 1, 4 cases, 1 death.
Columbia: Barranquilla, April 8 to 15, 4 cases.
Egypt: Cairo, April 1 to 8, 1 death.
Greece: Athens, April 15 to 22, 15 cases, 4 deaths.
Mexico: Chihuahua, April 29 to May 6, 1 death; Mexico, April 23 to 30, 10 cases, 2 deaths; Vera Cruz, April 20 to May 3, 3 deaths.
Russia: Moscow, April 1 to 15, 18 cases, 7 deaths; Odessa, April 15 to 22, 6 cases, 1 death; Warsaw, April 1 to 15, 8 deaths.

YELLOW FEVER.

Mexico: Vera Cruz, April 21 to May 3, 12 deaths.

PLAGUE.

Arabia: Aden, April 7, one case of plague on steamship Caledonia from Bombay.
China: Hongkong, March 11 to April 1, 16 cases, 16 deaths.
India: Bombay, March 27 to April 4, 892 deaths: Calcutta, March 18 to 25, 138 deaths.

Necrology.

FARNHAM O. BENNETT, M.D., Willimantic, Conn., a graduate of the Berkshire Medical School, class 1859, died March 26, aged 67 years.

WM. A. BROKAW, M.D., St. Louis, Mo., a graduate of the Missouri Medical College, class of 1896, died May 9, aged 27 years. After his graduation he served as interne in the City Hospital, afterward studied in Berlin, and on his return to this country was made instructor in his alma mater.

THOMAS GALBRAITH, M.D., Tarentum, Pa., is dead at the age of 83 years. After crossing the plains to California, during the gold excitement in 1849, he returned and entered Jefferson Medical College, Philadelphia, where he was graduated in 1853.

WILLIAM FRANCIS ROBINSON, M. D., instructor in dermatology and assistant to the dermatologic clinic at Rush Medical College, Chicago, died May 12 of meningitis. Dr. Robinson was born in Wisconsin thirty-six years ago, was graduated from the University of Wisconsin, and later from Rush Medical College in 1893, with which institution he has been connected since his graduation. Dr. Robinson had but recently returned from a winter study in the hospitals and clinics of London and the Continent.

JOHN E. CARPENTER, M. D., Washington, D. C., assistant-surgeon in the army during the Civil War, and later a special examiner in the pension office, died May 5.

H. E. FELTON, M.D., Salinas, Cal., died May 3. . . Milton A. Louver, M.D., Westminister, Md., May 3, aged 57 years. . . George Perkins, M.D., Somerset, Ky., May 11. . . E. G. Reinhardt, M.D., Roberts, Ill., May 5, aged 38 years. . . Jesse Robinson, M.D., Vacaville, Cal., May 4.

DEATHS ABROAD.

L. BUECHNER, formerly privat-docent of internal medicine at Tübingen. . . L. v. Babo, formerly professor of medical chemistry at Freiburg. . . K. L. Kahlbaum, Görlitz, a well-known alienist. . . C. Miniati, formerly professor of gynecology at Pisa. . . R. F. Capdevila, formerly professor of clinic medicine at Madrid.

Book Notices.

Transactions of the American Dermatological Association. 1898. Paper. Illustrated. Pp. 166. Concord, N. H.: Rumford Press. 1899.

This volume has to do with the twenty-second annual meeting of this association, held in New Jersey, May 31 and June 1, and in New York City, June 2, 1898, it contains papers presented before this body as follows: "President's Address;" "Hydroa Vacciniforme;" "An Unusual Bullous Eruption Limited to Certain Areas, and Recurring at Irregular Intervals;" "Trophic Dermatoses Following Fractures;" "Are Malignant Growths Arising from Pigmented Moles of a Carcinomatous or of a Sarcomatous Character? Report of two cases (one in a negro) with a study of the Histogenesis of Pigmented Moles;" "A Contribution to the Study of So-called Premycosic Stage of Mycosis Fungoides;" "A Strange Case of Granuloma of the Face and Extremities;" "Lymphangioma Circumscriptum Cutis, and the So-called Nevus Linearis;" "Lupus Erythematosus: *a*, Its Etiology and Pathology; *b*, Its Amenability to Treatment; "Lupus Erythematosus in a Tuberculous Patient, with Autopsy Report;" "A Report of Three Cases of Urticaria Pigmentosa;" "Impressions and Conclusions from a Study of Five Thousand Cases Treated During the Year;" "A Papular Persistent Dermatosis; A Report of an Undescribed Disease;" "Remarks on a Case of Lichen Scrofulosum;" "Report of a Case of Universal Lichen Planus, Followed by Sudden Death. Autopsy Report, with Microscopic Examination of the Skin Lesions;" "Bath Pruritus."

Principles of Bacteriology. By A. C. ABBOTT, M.D., Professor of Hygiene and Director of the Laboratory of Hygiene, University of Pennsylvania, Philadelphia. New (fifth) edition, enlarged and thoroughly revised. 12mo, pp. 585, 109 illustrations, of which 26 are colored. Cloth, $2.75 net. Philadelphia and New York: Lea Brothers & Co.

The appearance of the fifth edition of any work is in some respects an index of its merits. It at least shows that it satisfies the wants of a large class of readers. In the case of the present volume it evidently means that it has obtained favor with students and teachers, for it is emphatically a students' manual, giving as it does the culture and preparation methods of most of the important pathogenic bacteria. It will also be found a valuable handbook for the practitioner, but its probably necessary incompleteness in some respects is against it for this purpose. For example, it would seem that there are several morbific microbes, of importance enough to be noticed here, that are omitted or only barely mentioned, while others less frequent, but probably better for study, are

described at length. The index is rather defective, which is a serious fault. In most other respects, however, the work is one that can only be commended and that deserves the popularity it has evidently attained.

Report of Board of Health of the State of New Jersey, and the Report of the Bureau of Vital Statistics, 1898. Cloth. Pp., 601. Maps. Illustrated. Trenton, N. J.: MacCrellish & Quigley. 1899.

This volume is the twenty-second annual report of the New Jersey State Board of Health, and contains matter of interest to sanitarians and practitioners generally. In the report of the bureau of vital statistics there are tables of the deaths in the State from each of certain diseases for twenty years, and tables showing the death rate in cities of over 5000, also the marriages, births, etc., and the mortality of the State by statistic divisions, cities and counties. The report is certainly a credit to the board.

Miscellany.

Removal Notice.—The address of the Chicago office of Parke, Davis & Co. will hereafter be Suite 404, Trude Building, Wabash Ave.; telephone, Central 1595.

Extensive Resections of Intestines.—If the patient is young, over two meters (78.7 inches) can be resected without injury, as has been established in twenty six cases. Dreesmann recently removed two and one-sixth meters with smooth recovery—the patient, a woman of 37.—*Berlin. Klin. Woch.*, 1899, 16.

The Long Island College Hospital.—Prof. A. J. C. Skene has been appointed emeritus professor of gynecology, and the chairs of obstetrics and gynecology have been combined under Prof. Charles Jewett, M.D., as professor of obstetrics and gynecology. The department of bacteriology has been added to that of pathology, under Prof. J. M. Van Cott, M.D., as professor of pathology and bacteriology, and the department of histology has been assigned to Prof. W. W. Crowning, professor of anatomy.

Hydatid Cysts in Kidneys.—L. Manasse has collected fifty-one cases of echinococcus cysts in the kidneys, but could only find a record of two primary cysts in the bladder. Hydatid cysts are not transparent to the Roentgen rays, and a recent case published by Posner, diagnosed by cystoscopy and radiography, was cured by extirpation of the suppurated cyst through a lumbar incision.—*Cbl. f. Chir.*, April 8.

Venesection in Sunstroke.—Toussaint relates a couple of instances in which artificial respiration and all the usual measures failed to revive the patient. A vein in the elbow was opened, but no blood flowed until after half an hour of continued artificial respiration and working the joints. When 600 to 700 grams had been withdrawn, consciousness returned.—*Revue Méd.*, April 12.

The Lenval Prize.—The prize founded by Baron Léon de Lenval of Nice will be awarded at the international otological congress, to be held in London, Aug. 8-11, 1899. In connection with the International Congress of Otology 3000 francs has been given, and the interest on this sum, which accumulates between one congress and the next, is awarded to the author of the most marked progress bearing on the practical treatment of affections of hearing during that time, or to the inventor of any new apparatus which is readily portable and considerably improves the hearing power of deaf persons. A jury of seven members will pronounce its decision at the closing meeting of each congress. The members of the jury, as at present constituted, are Professor Politzer, Vienna; Dr. Benni, Warsaw; Dr. Gellé, Paris; Professor Pritchard, London, Prof. St. John Roosa, New York; Professor Kirchner, Würzburg, and Professor Grazzi, Florence. All persons desirous of competing for the prize are requested to communicate with Mr. Cresswell Baber, Hon. Sec. Gen., 46 Brunswick Square, Brighton, England, stating the facts on which their claim is based.

Changes in Skin in Consequence of Use of X-rays.—Behrend (*Berlin. Klin. Woch.*, 1898, No. 23) describes a case of permanent, irreparable alterations in the skin of the hands and in the nails of a man who was much occupied with the X rays. The changes consist in serous infiltration of the tissues with the formation of vesicles and subsequent desquamation. They, therefore, resemble the lesions produced by burns. Somewhat similar changes develop in the nails after prolonged or frequently repeated exposure to the rays. If the exudation be pronounced, then the nail is lifted away from the underlying structures and completely loosened. In the case of more intense changes the nail matrix is destroyed for good. In the same way the hairs are loosened and eventually the hair producing structures are permanently destroyed and there results a marked change in the appearance of the tissues. The resulting severe atrophic condition resembles scleroderma, as is also sometimes the case in long existing eczema. In view of the possibility of malpractice suits and hostile verdicts in such unfortunate occurrences, after the employment of the X-ray, it behooves the physician and expert in charge to take proper measures for their prevention, eventually for self-protection.

Can not Replevin Human Corpse.—What the supreme court of Michigan terms a more novel than difficult question was presented to it in the recent case of Keyes vs. Konkel, which was an action to replevin to recover the dead body of the plaintiff's brother. The deceased died at a hospital, and the defendants, who were undertakers, took charge of the corpse by request of the hospital authorities. The plaintiff, after the defendants had performed some services for fitting the body for burial, demanded possession of the body, and the defendants refused to deliver the body up unless paid for their services. Thus was raised the question of whether replevin will lie for a human corpse. The Michigan statute provides for the proceeding of replevin in the justice court, and requires an affidavit by the plaintiff setting forth that his "personal goods and chattels" have been unlawfully taken or are unlawfully detained. The replevin statutes provide for a judgment for the defendant, when the plaintiff fails in his case, for a return of the property or its value. Now, it is apparent, says the supreme court, that no return of the property can be ordered in case of the replevin of a dead body, and it is equally true that its value in money can neither be appraised nor ascertained by a jury. It was formerly held in England, continues the court, that there can be no property in a human body. In certain modern American cases a dead body has been said to be a quasi property, and the right to control and bury it, and to recover against one who mutilates the corpse, has been maintained. Recovery for the refusal of the right to bury or for mutilation of the body is rather based upon an infringement of a right than upon the notion that the property of the plaintiff has been interfered with. The recovery in such cases is not for the damage to the corpse as property, but damage to the next of kin by infringement of his right to have the body delivered to him for burial without mutilation. In numerous cases equity has taken jurisdiction to prevent interference with the control of the dead body by persons entitled to control it. And in one instance an English court granted the remedy by mandamus to a jailer. But on every consideration, the supreme court of Michigan says that it is of the opinion that replevin can not be maintained. It was not contended here that the defendants were entitled to maintain a lien. It is obvious, adds the court, that return can not be adjudged. Consequently, it holds the only proper judgment to be one dismissing the proceeding, with costs of all the courts to the defendants.

"Christian Science" and "Magic Healer."—At an inquest held in the case of Mrs. Charlotte Barguet, of Mount Vernon, N. Y., who died on May 3, under "Christian Science" treatment, the jury rendered a verdict that Mrs. Barguet died from acute pleurisy, which could have been relieved, if not entirely cured, had proper medical treatment been given. In the opinion of the jurors Mrs. Clarence Fowler, the "Christian Science" healer, and the son and daughter of the deceased, were guilty of criminal negligence, and the coroner was recommended to take the necessary steps to bring them to justice. Consequently, the coroner ordered the immediate arrest of the persons named, and Mrs. Fowler and young Barguet were each held in $1,000 bail, while Miss Barguet, being considered an accessory, was paroled. A "magic healer," who came near causing the death of a German child, in Brooklyn, has been arrested and held in $350 on the charge of practicing medicine without having registered as a physician. It seems that about two weeks previously the child developed gangrene in one of the toes of the left foot and Dr. S. B. Blaisdell, of the Eastern District Hospital, in consultation with Prof. George B. Fowler, of the Long Island College Hospital, advised amputation. The mother refused to have the operation performed and called in the Müller woman to attend the case. Under her treatment, which consisted of mysterious incantations, accompanied by certain inunctions, the child continued to grow steadily worse, until finally the whole foot sloughed off. The "healer" was then dismissed and the patient removed to the Eastern District Hospital, where it was found necessary to amputate the limb above the knee. These and similar cases which have recently occurred have naturally attracted considerable attention on the part of the medical profession, as well as the community at large, and on May 11, President Murphy, of the board of health, addressed the following communication to Sanitary Superintendent Roberts: "You are hereby requested to direct the assistant sanitary superintendents of the various boroughs of this city to use all means in their power to discover and locate persons practicing medicine without diplomas. Recent events have shown this department that uneducated, ignorant, and those whom I believe to be evil minded people, go from house to house and take advantage of their more ignorant neighbors, professing that they are endowed with wonderful healing faculties. If this system is allowed to proceed great evil will result. In your endeavors to suppress the practice I would suggest that you immediately communicate with the medical societies of the several counties comprising the entire greater city, and either make an arrangement to meet in consultation to advise what is the best method to adopt, or receive their communications in writing, and afterward adopt some broad system that the object in view may be accomplished. It is only by the aid of medical societies that this department can meet with success, and to them we must look both for advice and example." (See p. 1123.)

Limitation of Food Preservatives.—In the agitation concerning food adulteration, that phase of the question which deals with the use of antiseptics is not only one of the most difficult problems of solution, but it is also of the greatest interest to the medical profession. Heretofore the subject has been regarded chiefly from two sides, namely, from the standpoint of the manufacturer who, as a rule, is of the opinion that the addition of any substance which will prevent food or food products from spoiling is of decided advantage to him and a benefit to the consumer, provided, of course, that the proportionate amount required to do the work is not too great and also that the article employed as a preservative is a harmless addition. Since the first is limited by the increased cost of the product and the second is usually assured by the manufacturers, or special dealers, who sell these articles to the food manufacturer, his road is clear to the manufacture of cheaper and better food and also increased profits. As a rule he is a practical man who does not pry into any one else's business, "buys what he wants and pays for it," and does not care especially about the chemic composition of these things since he "himself is not a chemist." But he insists that everything he uses "must be guaranteed" and "be harmless." The consumer on the other hand, that is, the rare individual who has some information on the subject, usually decries the use of any and all additions as deleterious and fraudulent. Judging from what information he may have gathered, anything that is not food must be poison, and "he don't want any poison in his." While these opposite views are of course those of the laity, they are more or less shared by others who have had opportunities at least to make a more discriminating study of food and food products. The recent sessions held in Chicago by the committee appointed by the U. S. Senate to investigate the adulterations of food, furnished a splendid opportunity for the ventilation of the entire food question and especially that phase of it pertaining to the use of preservatives. Seldom have so many chemists of undoubted experience and reputation uniformly and unequivocally agreed to a question upon which there was generally supposed to be a decided difference of opinion. The witnesses called to testify because of their experience in the examination of food and their adulterations comprised Dr W. H. Wiley, chief chemist to the department of agriculture, Washington; Dr. A. S. Mitchell, chemist to the Davey Commission of Wisconsin; Prof. A. B. Prescott and Prof. Victor C. Vaughan of the University of Michigan, and Prof. C. S. N. Halberg of the School of Pharmacy of the University of Illinois. Every one of these gentlemen laid down the principle that the addition of any substance which will retard or prevent fermentation or other change or decomposition in food or food products in its preparation or preservation, will also retard, impair or prevent the changes or decomposition upon which the digestion and consequent assimilation depend, and to that extent interfere with nutrition. This is the broad principle, and measured by it, all antiseptics, antiferments or other preservative agents of this character, such as salicylic acid and other phenol derivatives, boric acid, formaldehyde, etc., should be relegated to performing their original function, namely, the paralyzing of pathogenic bacteria in surgical operations and on the cadaver, and not for ingestion in the healthy human stomach, except for intestinal antiseptic and similar therapeutic purposes. Yet there is no principle, perhaps, without an exception, and such seems to be the case here. Some of the experts believed that there was a legitimate use for antiseptics or rather antiferments in that class of food preparations called condiments. Thus it was pointed out that catsup could not be preserved for a desirable length of time in the average household without the addition of some preservative. Since the quantities used of such articles by each individual is comparatively small, no harm could arise from the employment, within certain defined limits, of a preservative agent in this instance. With less force may the same limitation be applied to the preservation of certain saccharin beverages, although the more largely used of these, such as beer, require no addition for their preservation—heat and refrigeration alone. The additions are moreover objectionable from the fact, as pointed out by Professor Prescott, that their use facilitates the sale of food which otherwise would be rejected on account of its apparent inferior quality or liability to spoil, also according to Dr. Vaughan, in that the antiferments are employed in lieu of, or to cover up, defective or otherwise faulty sterilization and possibly refrigeration. The inquiry brought out many important facts bearing on the food adulteration, which has attained appalling proportions, and it is confidently hoped that the committee will be able to arouse the American people, and, through the creation of a National board of health, protect health and commerce from the dangers of impure food.

Washington.

HEALTH OF THE DISTRICT.—The report of the health officer for the week ended May 6 shows the total number of deaths to have been 87, of which 51 were white and 36 colored. There were 4 deaths from cerebrospinal meningitis, and 1 each from measles and diphtheria. At the close of the week there were 23 cases of smallpox, 17 of diphtheria and 31 of scarlet fever under treatment.

WOMAN'S CLINIC. At the regular meeting of the board of directors of the clinic, held on the 13th instant, the report of the attending staff showed a considerable increase of the work of the dispensary, and the treasurer's report showed an in-

crease of finances and a balance in the treasury. A special committee consisting of Drs. D. S. Lamb, H. L. E. Johnson, and Robert Reyburn, was appointed to secure a congressional appropriation for maintenance.

Philadelphia.

CONDITION OF DR. BRINTON.—Dr. Daniel G. Brinton, while on a visit to Media, Pa., recently became seriously ill with gastralgia, but is now greatly improved.

NEW TRUSTEE.—The board of trustees of the Jefferson Medical College recently elected Judge Sulzberger a member of the board, to fill the vacancy caused by the resignation of Col. Samuel Goodman.

EXAMINER OF DRUGS.—A despatch from Washington announces the appointment of Benjamin Ashmead of Philadelphia to be examiner of drugs of that city. Mr. Ashmead has been in the drug business for the past twenty years and is a graduate of the Philadelphia College of Pharmacy. The salary is $1200 per annum.

TO DR. JOHN GUITÉRAS.—Invitations have been issued by friends of Dr. John Guitéras for a reception tendered in honor of his professional services and the esteem in which he is held by the medical profession, to be given at the University Club on the evening of May 24.

DR. EVANS' MILLIONS.—It is stated that the executors of the estate of the late Dr. Thomas W. Evans of Paris have reached an agreement by which endless litigation will be prevented, and that several millions of dollars will be expended on a museum pertaining to the subject of dentistry, to be erected in West Philadelphia near the University of Pennsylvania.

RESIGNATIONS.—The following district physicians have recently tendered their resignations to the board of charities and corrections of this city: G. A. Knowles and J. M. Montgomery. Dr. F. J. Douglass was elected to succeed Dr. Paxson for the ninth and tenth wards. Owing to the resignation of Major W. H. Lambert of the board, Mr. A. H. Dingee has been appointed.

BLOCKLEY HOSPITAL.—It is stated that up to date there are 150 applicants for the position of resident physician on the staff of the Philadelphia (Blockley) Hospital, and it is supposed that 200 will present themselves when the examination will be held. There are twenty vacancies.

The Public Service.

Movements of Army Medical Officers under orders from the Adjutant-General's Office, to and including May 11, 1899:

Lomax S. Anderson, lieutenant and asst.-surgeon 5th U.S. Vol. Inf., leave of absence to date of muster out of his regiment.

Daniel M. Appel, major and surgeon U.S.A., now on duty as commanding officer of the general hospital at Savannah, Ga., is relieved from duty and station at Ft. Logan H. Roots, Ark.

Percy N. Barnesby, acting asst.-surgeon, from Jefferson Bks., Mo., to post duty at Ft. Sam Houston, Texas.

Harry Barnharett, acting asst.-surgeon, from the Josiah Simpson general hospital, near Ft. Monroe, Va., to Washington, D. C., reporting to the surgeon-general.

Wm. J. Boyd, acting asst.-surgeon, from Macon, Ga., to Pavilion, N. Y., reporting by letter to the surgeon-general.

J. Fred. Clarke, major and surgeon 49th Iowa Inf., sick leave granted.

August von Clossman, acting asst.-surgeon, from examining recruits at St. Louis, Mo., to post duty at Jefferson Bks., Mo.

Wm. B. Davis, major and surgeon U.S.A., delegate to the meeting of the Amer. Med. Ass'n at Columbus, Ohio, June 6-9, 1899.

Fred. S. Dewey, acting asst.-surgeon, from Ft. Sill, Okla., to post duty at Ft. Sam Houston, Texas.

John R. McDill, brigade surgeon vols., to proceed to his home, Milwaukee, Wis.

Chas. E. Donlan, acting asst.-surgeon, from Camp Mackenzie, Augusta, Ga., to Lowell, Mass., reporting to the surgeon-general.

Powell C. Fauntleroy, lieutenant and asst.-surgeon U.S.A., leave of absence granted.

Chas. Fitzpatrick, acting asst.-surgeon, from Philadelphia, Pa., to San Francisco, Cal., to accompany the 4th U.S. Cav. to Manila, P. I.

Jos. F. Ford, lieutenant and asst.-surgeon U.S.A., from the general hospital at Savannah, Ga., to San Francisco, Cal., for assignment in the Dept. of California.

Frank W. Foxworthy, acting asst.-surgeon, from Washington, D. C., to San Francisco, Cal., for duty in the Dept. of California.

Leonard K. Graves, acting asst.-surgeon, from New York City to Camp Meade, Middletown, Pa., to accompany the 19th U.S. Inf. to Manila, P. I.

Chas. R. Greenleaf, colonel and asst. surgeon-general U.S.A., to inspect the medical supply depot at Atlanta, Ga., and the general hospital at Ft. McPherson, Ga., thereafter returning to his duties at Savannah, Ga.

Robt. W. Guiler, acting asst.-surgeon, leave of absence granted.

Merritt W. Ireland, captain and asst.-surgeon U.S.A., delegate to the Amer. Med. Ass'n at its meeting June 6-9, 1899, at Columbus, Ohio.

Franklin M. Kemp, lieutenant and asst.-surgeon U.S.A., from duty in the Philippine Islands to post duty at Ft. Hamilton, N. Y.

H. S. Kilbourne, major and surgeon U.S.A., member of a board in New York City, to examine lieutenants of the line for transfer to the ordnance department.

Fred. W. R. Lapsley, acting asst.-surgeon, from New York City to Chicago, reporting by letter to the surgeon-general.

John A. Metzger, acting asst.-surgeon, from the Josiah Simpson general hospital, near Ft. Monroe, Va., to Pittsburg, Pa., reporting by letter to the surgeon-general.

John C. Orr, acting asst.-surgeon, from Camp Mackenzie, Augusta, Ga., to Chambersburg, Pa., reporting by letter to the surgeon-general.

Geo. P. Peed, acting asst.-surgeon, from Portsmouth, Va., to Havana, Cuba, for assignment in the Div. of Cuba.

Jas. E. Pilcher, captain and asst.-surgeon U.S.A., now at Savannah, Ga., is relieved from further station at Ft. Crook, Neb.

Benj. F. Pope, lieut.-colonel and deputy surgeon-general U.S.A., delegate to the Amer. Med. Ass'n at its meeting at Columbus, Ohio, June 6-9, 1899.

Wm. E. Purviance, captain and asst.-surgeon U.S.A., from the general hospital, Ft. McPherson, Ga., to San Francisco, Cal., for duty in the Dept. of California.

Wm. W. Quinton, captain and asst.-surgeon U.S.A., relieved from duty at Santiago, Cuba, and on expiry of his present leave to proceed to Havana, Cuba, for duty in that Dept.

John S. Schaul, acting asst.-surgeon, from Camp Mackenzie, Augusta, Ga. to Chambersburg, Pa., reporting by letter to the surgeon-general.

S. MacC. Stuart, acting asst.-surgeon, from Camp Mackenzie, Augusta, Ga., to Washington, D.C., reporting to the surgeon-general.

S. T. Weirick, acting asst.-surgeon, from Ft. Reno, Okla., to San Francisco, Cal., for duty with troops at Pyramid Harbor, Alaska.

Roy A. Wilson, acting asst.-surgeon, from the Josiah Simpson general hospital, near Ft. Monroe, Va., to Washington, D. C., reporting to the surgeon-general.

Movements of Navy Medical Officers.—Changes in the medical corps of the U.S. Navy for the week ending May 13, 1899.

P. A. Surgeon J. C. Rosenbleuth, orders assigning to "Newport" moderated; ordered to the "Vermont."

Medical Inspector J. E. Wise, detached from the Asiatic station and ordered to the naval hospital, Yokohama, Japan, for treatment; thence home to wait orders.

P. A. Surgeon L. L. Young, sick leave extended two months.

Surgeon F. Rogers, detached from the "Buffalo," directed to be examined for promotion May 15, and ordered home to wait orders.

P. A. Surgeon J. C. Rosenblauth, detached from the "Vermont" and ordered to the "Buffalo."

Asst.-Surgeon R. S. Blakeman, detached from the "Buffalo" and ordered home to wait orders.

P. A. Surgeon C. M. DeValin, detached from the "Brooklyn" and ordered home to wait orders.

Asst.-Surgeon W. B. Grove, detached from the "Vicksburg" when put out of commission, and ordered to the "Brooklyn."

Asst.-Surgeon F. M. Furlong, detached from the "Scindia" when put out of commission, and ordered to the "Independence" temporarily.

Marine-Hospital Changes.—Official List of Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the U.S. Marine-Hospital Service, for the seven days ended May 11, 1899.

Surgeon R. D. Murray, granted leave of absence for fifteen days from June 4, 1899.

Surgeon C. T. Peckham, when relieved from duty at New Orleans, La., by P. A. Surgeon J. A. Nydegger, to rejoin station at Pittsburg, Pa.

Surgeon C. T. Peckham, to proceed to Neville Island, Pa., for special temporary duty.

P. A. Surgeon G. T. Vaughan, detailed by the secretary of the treasury to represent the treasury department as delegate to the International Tuberculosis Congress at Berlin, Germany, May 24 to 27, inclusive.

P. A. Surgeon J. A. Nydegger, to rejoin station at New Orleans, La.

P. A. Surgeon W. J. S. Stewart, to proceed to Nantucket, Mass., for special tempory duty.

Asst.-Surgeon John McMullen, upon being relieved from duty as sanitary inspector on U.S. transport "Buford," to report to the medical officer of the service at the U.S. immigration depot, New York City, for temporary duty.

Asst.-Surgeon R. H. von Ezdorf, detailed as inspector of quarantines.

Asst.-Surgeon V. G. Heiser, detailed by direction of the President for duty in the office of the U.S. consul at Naples, Italy.

Asst.-Surgeon V. G. Heiser, upon being relieved from duty at the immigration depot, New York City, to report at Washington, D. C., for instructions preliminary to departure for Naples, Italy, for duty.

Asst.-Surgeon W. C. Hobdy, relieved from duty at the Reedy Island quarantine station, and directed to proceed to Stapleton, Staten Island, N. Y., and report to medical officer in command for duty and assignment to quarters.

Asst.-Surgeon G. M. Corput, granted leave of absence for seven days.

BOARD CONVENED.

Board convened to meet at Detroit, Mich., on May 20, 1899, for the physical examination of Surgeon John Godfrey, M.-H.S. Detail for the board: Surgeon H. W. Sawtelle, chairman; and P. A. Surgeon G. M. Magruder, recorder.

CHANGE OF ADDRESS.

Aynesworth, K. H., from Galveston to Waco, Texas.
Bennett, A. L., from Gaboon, Africa, to St. Anne, Ill.
Buffington, W. R., from New Orleans, La., to Magnolia, Ark.
Fisher, G. C., from 343 Ogden to 3000 Indiana Ave., City.
Hamilton, G. W., from Buffalo, N. Y., to Sts. Mary and Elizabeth Hospitals, Louisville, Ky.
Hargrove, J. H., from Richmond to Garyville, Va.
Haley, P. A., from Richmond to Buckners, Va.
Hundley, M. E., from Richmond, Va., to Leatherwood, Va.
Jones, J. F., from Galveston to 153 Grand Ave., Sherman, Texas.
Long, H. E., from 158 W. 3d Ave. to California Bldg., Denver, Colo.
Le Moyne, F., from Pittsburg, Pa., to The Chatham, Atlantic City, N. J.
Mincey, J. N., from Galveston, to Van Alstyne, Texas.
McFall, G. H., from Detroit, Mich., to Put-in-Bay, Ohio.
McGahan, C. F., from Aiken, S. C., to Bethlehem, N. H.
Mayo, H. N., from De Lamar, Nev., to Security Bldg., St. Louis, Mo.
McBride, M. A., from Sidney to Watt, Texas.
Pattans, W. B., from Columbus to Buckingham Bldg, Springfield, Ohio
Trueblood, C., from Indianapolis to Chesterfield, Ind.
Waterhouse, G. M., from St. Louis to Weiser, Idaho.
Yeakley, W. H., from Richmond to Gainsboro, Va.